A Socioeconomic Evaluation of the Recreational use of Fish and Wildlife Resources in Alberta with Particular Reference to the AOSERP Study Area Volume III: Recreational Hunting

Project TF 6.1
June 1979

Sponsored jointly by

Alberta ENVIRONMENT

Environment Canada | Environnement Canada

15th Floor, Oxbridge Place
9820 - 106 Street
Edmonton, Alberta, Canada
T5K 2J6

A SOCIOECONOMIC EVALUATION OF THE RECREATIONAL USE OF FISH AND WILDLIFE RESOURCES IN ALBERTA WITH PARTICULAR REFERENCE TO THE ATHABASCA OIL SANDS AREA

Volume III

RECREATIONAL HUNTING

by

WILLIAM PHILLIPS, DENIS DePAPE, AND LEONARD EWANYK
Department of Rural Economy
The University of Alberta

Prepared for the

ALBERTA OIL SANDS ENVIRONMENTAL RESEARCH PROGRAM

TF 6.1

June 1979

ALBERTA OIL SANDS ENVIRONMENTAL RESEARCH PROGRAM
RESEARCH REPORTS

These research reports describe the results of investigations funded under the Alberta Oil Sands Environmental Research Program, which was established by agreement between the Governments of Alberta and Canada in February 1975 (amended September 1977). This 10-year program is designed to direct and co-ordinate research projects concerned with the environmental effects of development of the Athabasca Oil Sands in Alberta.

A list of research reports published to date is included at the end of this report.

Enquiries pertaining to the Canada-Alberta Agreement or other reports in the series should be directed to:

Alberta Oil Sands Environmental Research Program
15th Floor, Oxbridge Place
9820 - 106 Street
Edmonton, Alberta
T5K 2J6
(403) 427-3943

A Socioeconomic Evaluation of the Recreational Use of Fish and Wildlife Resources in Alberta, with Particular Reference to the AOSERP Study Area. Volume III: Recreational Hunting

Project TF 6.1

This report may be cited as:

Phillips, W., D. DePape, and L. Ewanyk. 1979. A socioeconomic evaluation of the recreational use of fish and wildlife resources in Alberta, with particular reference to the AOSERP study area. Volume III: Recreational hunting. Prep. for the Alberta Oil Sands Environmental Research Program by the University of Alberta, Department of Rural Economy. AOSERP Project TF 6.1. 149 pp.

The Hon. J.W. (Jack) Cookson
Minister of the Environment
222 Legislative Building
Edmonton, Alberta

and

The Hon. John Roberts
Minister of the Environment
Environment Canada
Ottawa, Ontario

Dear Sirs:

Enclosed is the report "A Socioenomic Evaluation of the Recreational Use of Fish and Wildlife Resources in Alberta with Particular Reference to the Athabasca Oil Sands Area".

This report was prepared for the Alberta Oil Sands Environmental Research Program, through its Terrestrial Fauna Technical Research Committee (now the Land System), under the Canada-Alberta Agreement of February 1975 (amended September 1977).

Respectfully,

W. Solodzuk, P. Eng.
Chairman, Steering Committee, AOSERP
Deputy Minister, Alberta Environment

A.H. Macpherson, Ph.D
Member, Steering Committee, AOSERP
Regional Director-General
Environment Canada
Western and Northern Region

A SOCIOECONOMIC EVALUATION OF THE RECREATIONAL USE OF FISH AND WILDLIFE RESOURCES IN ALBERTA, WITH PARTICULAR REFERENCE TO THE AOSERP STUDY AREA VOLUME III: RECREATIONAL HUNTING

DESCRIPTIVE SUMMARY

BACKGROUND

Resource development at the scale projected for the Athabasca Oil Sands area will inevitably result in a dramatic increase in population. Concurrent with this increase in population will be a significant increase in the recreational use of the fish and wildlife resource of the once wilderness area. A prerequisite to effective management of the fish and wildlife resource is an understanding of the utilization of this resource.

This project has evaluated the recreational use of the fish and wildlife resource (1976 level) in the AOSERP study area by focussing on the socioeconomic rather than the biophysical aspects of utilization. The following objectives provided the operational direction for this project:

1. To ascertain the socioeconomic characteristics of participants in recreational fishing, hunting, and nonconsumptive uses of fish and wildlife;
2. To establish a detailed profile of recreational fishing, hunting, and nonconsumptive fish and wildlife use activities, particularly with regard to activity locations, durations, expenses, and species of fish and wildlife involved;
3. To determine the number of recreational days expended in these activities by Albertans;
4. To examine the desirability of different species of fish and wildlife, and
5. To estimate the value of fish and wildlife resources used for recreational purposes.

The results of this project have been reported in four volumes:

Volume I: Summary and Conclusions (AOSERP Report 43)
Volume II: Recreational Fishing
Volume III: Recreational Hunting
Volume IV: Nonconsumptive Recreational Use of Fish and Wildlife

This report (Volume III) presents a socioeconomic evaluation of the recreational hunting resource in the AOSERP study area.

ASSESSMENT

Project TF 6.1 has been reviewed by scientists within the Governments of Alberta and Canada. Volume I: Summary and conclusions has been published and received wide distribution (AOSERP Report 43). Since Volume III: Recreational Hunting presents data which have been summarized and published in Volume I, Volume III will be published but receive limited distribution.

Program management of AOSERP accepts the report entitled, "A Socioeconomic Evaluation of the Recreational Use of Fish and Wildlife Resources in Alberta, with Particular Reference to the AOSERP study area. Volume III: Recreational Hunting", and thanks the authors for their contribution to the program.

William R. MacDonald

W.R. MacDonald, Ph.D
Director (1980-81)
Alberta Oil Sands Environmental
Research Program

TABLE OF CONTENTS

		Page
DECLARATION		ii
LETTER OF TRANSMITTAL		iii
DESCRIPTIVE SUMMARY		iv
LIST OF TABLES		xi
LIST OF FIGURES		xx
ABSTRACT		xxi
ACKNOWLEDGEMENTS		xxii
1.	INTRODUCTION	1
2.	BACKGROUND, SCOPE AND OBJECTIVES	2
3.	RESEARCH DESIGN AND PROCEDURES	7
3.1	Questionnaire Design	7
3.2	Sampling Design	8
3.3	Mail-Out Procedures and Return Results	9
3.4	The Processing of Responses	12
4.	PROVINCIAL HUNTING SURVEY RESULTS	13
4.1	Socioeconomic Characteristics	13
4.2	Hunting Experience, Motivation and License Held	15
4.3	Hunting Activity Costs	17
4.4	Hunting Activity Benefits	20
4.5	Hunting Activity	23
4.5.1	Big Game Hunting Activity	23
4.5.2	Upland Bird Game Hunting Activity	27
4.5.3	Migratory Bird Game Hunting Activity	29
4.5.4	Summary	31
4.6	Comments	33
4.7	AOSERP Study Area Hunting Activity	33
4.8	Summary	37
5.	AOSERP STUDY AREA HUNTING SURVEY RESULTS	39
5.1	Socioeconomic Characteristics	39
5.2	Hunting Experience, Motivation, and Licenses Held	41
5.3	Hunting Activity Costs and Benefits	43
5.4	Hunting Activity	45
5.4.1	Big Game Hunting Activity	45
5.4.2	Upland Bird Game Hunting Activity	48

TABLE OF CONTENTS (CONCLUDED)

		Page
5.4.3	Migratory Bird Game Hunting Activity	50
5.4.4	Summary	52
5.5	Comments	54
6.	SUMMARY AND CONCLUSIONS	56
6.1	Socioeconomic Characteristics	56
6.2	Hunting Experience	59
6.3	Hunting Activity Costs and Benefits	63
6.4	Hunting Activity	67
6.4.1	Big Game Hunting Activity	68
6.4.2	Upland Bird Game Hunting Activity	71
6.4.3	Migratory Bird Game Hunting Activity	73
7.	REFERENCES	76
8.	APPENDICES	78
8.1	Survey Questionnaires and Covering Letters	78
8.1.1	Provincial Hunting Questionnaire and Covering Letter	78
8.1.2	AOSERP Study Area Questionnaire and Covering Letter	87
8.2	Provincial Hunting Survey Tables	94
8.3	AOSERP Study Area Survey Tables	210
9.	LIST OF AOSERP RESEARCH REPORTS	247

LIST OF TABLES

		Page
1.	Sample Responses to Hunting Surveys, 1976	11
2.	Hunting Costs Per Person for Provincial Hunting Survey Respondents, 1975-76 Season	18
3.	Benefits Per Person for Hunting Activity for Provincial Hunting Survey Respondents, 1975-76 Season	21
4.	Socioeconomic Characteristics and Hunting Experience of Provincial and AOSERP Study Area Hunting License Holders, 1975-76 Season	57
5.	Ratings for Hunting Activities of Provincial and AOSERP Study Area Resident Hunters, 1975-76 Season	60
6.	Costs and Benefits for Hunting Activities of Provincial and AOSERP Study Area Resident Hunters, 1975-76 Season	64
7.	Hunting Activities of Provincial and AOSERP Study Area Resident Hunters, 1975-76 Season	65
8.	Game Harvest by Provincial and AOSERP Study Area Resident Hunters, 1975-76 Season	69
9.	Residences of Provincial Hunting Survey Respondents, 1975-76 Season	95
10.	Age Distribution of Provincial Hunting Survey Respondents, 1975-76 Season	99
11.	Male-Female Distribution of Provincial Hunting Survey Respondents, 1975-76 Season	100
12.	Occupations of Provincial Hunting Survey Respondents, 1975-76 Season	101
13.	Family Size of Provincial Hunting Survey Respondents, 1975-76 Season	102
14.	Family Income of Provincial Hunting Survey Respondents, 1975-76 Season	103
15.	Years of Formal Education of Provincial Hunting Survey Respondents, 1975-76 Season	104
16.	Previous Hunting Experience of Provincial Hunting Survey Respondents, 1975-76 Season	106

LIST OF TABLES (CONTINUED)

Page

17. Previous Provincial Hunting Experience of Provincial Hunting Survey Respondents, 1975-76 Season 107

18. Previous AOSERP Study Area Hunting Experience of Provincial Hunting Survey Respondents, 1975-76 Season 108

19. Reasons for Hunting Given by Provincial Hunting Survey Respondents, 1975-76 Season 109

20. Licenses Held by Provincial Hunting Survey Respondents, 1975-76 Season 111

21. Hunting Experience in Alberta During the 1975-76 Season of Provincial Hunting Survey Respondents, 1975-76 Season . 112

22. Rating of Big Game Hunting Experience by Provincial Hunting Survey Respondents, 1975-76 Season 113

23. Rating of Upland Bird Game Hunting Experience by Provincial Hunting Survey Respondents, 1975-76 Season 114

24. Rating of Waterfowl Hunting Experience by Provincial Hunting Survey Respondents, 1975-76 Season 115

25. Travel Costs Per Person Per Season for Big Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 116

26. Lodging Costs Per Person Per Season for Big Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 118

27. Food Costs Per Person Per Season for Big Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 119

28. Beverage Costs Per Persor Per Season for Big Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 121

29. Rental Costs Per Person Per Season for Big Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 122

30. Guide Costs Per Person Per Season for Big Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 123

LIST OF TABLES (CONTINUED)

Page

31. Ammunition Costs Per Person Per Season for Big Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 124

32. Hunting Service Costs Per Person Per Season for Big Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 126

33. Miscellaneous Costs Per Person Per Season for Big Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 127

34. Total Variable Hunting Costs Per Person Per Season for Big Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 128

35. Travel Costs Per Person Per Season for Upland Bird Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 132

36. Lodging Costs Per Person Per Season for Upland Bird Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 133

37. Food Costs Per Person Per Season for Upland Bird Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 134

38. Beverage Costs Per Person Per Season for Upland Bird Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 135

39. Rental Costs Per Person Per Season for Upland Bird Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 136

40. Guide Costs Per Person Per Season for Upland Bird Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 137

41. Ammunition Costs Per Person Per Season for Upland Bird Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 138

42. Hunting Service Costs Per Person Per Season for Upland Bird Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 139

LIST OF TABLES (CONTINUED)

Page

43. Miscellaneous Costs Per Person Per Season for Upland Bird Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 140

44. Total Variable Hunting Costs Per Person Per Season for Upland Bird Game Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 141

45. Travel Costs Per Person Per Season for Waterfowl Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 143

46. Lodging Costs Per Person Per Season for Waterfowl Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 145

47. Food Costs Per Person Per Season for Waterfowl Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 146

48. Beverage Costs Per Person Per Season for Waterfowl Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 147

49. Rental Costs Per Person Per Season for Waterfowl Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 148

50. Guide Costs Per Person Per Season for Waterfowl Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 149

51. Ammunition Costs Per Person Per Season for Waterfowl Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 150

52. Hunting Service Costs Per Person Per Season for Waterfowl Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 152

53. Miscellaneous Costs Per Person Per Season for Waterfowl Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 153

LIST OF TABLES (CONTINUED)

Page

54. Total Variable Hunting Costs Per Person Per Season for Waterfowl Hunting Incurred by Provincial Hunting Survey Respondents, 1975-76 Season 154

55. Capital Costs Per Person Per Season Incurred by Provincial Hunting Survey Respondents, 1975-76 Season . . 157

56. Itemized Capital Purchases for Provincial Hunting Survey Respondents During the 1975-76 Season Used in Part or in Whole for Hunting Purposes 160

57. Extramarket Benefits Per Person Per Day from Big Game Hunting Received by Provincial Hunting Survey Respondents, 1975-76 Season 162

58. Extramarket Benefits Per Person Per Day from Upland Bird Game Hunting Received by Provincial Hunting Survey Respondents, 1975-76 Season 164

59. Extramarket Benefits Per Person Per Day from Waterfowl Hunting Received by Provincial Hunting Survey Respondents, 1975-76 Season 165

60. Compensation Benefits Required to Stop Hunting Per Person Per Year for Provincial Hunting Survey Respondents, 1975-76 Season 167

61. Hunting Activities of Provincial Hunting Survey Respondents, 1975-76 Season 169

62. Big Game Hunter Activity and Success by Species of Provincial Hunting Survey Respondents, 1975-76 Season . . 170

63. Upland Bird Game Hunter Activity and Success by Species of Provincial Hunting Survey Respondents, 1975-76 Season. 171

64. Migratory Bird Game Hunter Activity and Success by Species of Provincial Hunting Survey Respondents, 1975-76 Season. 172

65. Big Game Hunting Activity by Wildlife Management Unit (WMU) of Provincial Hunting Survey Respondents, 1975-76 Season. 173

66. Upland Bird Game Hunting Activity by Wildlife Management Unit of Provincial Hunting Survey Respondents, 1975-76 Season 177

LIST OF TABLES (CONTINUED)

Page

67. Migratory Bird Game Hunting Activity by Wildlife Mangement Unit of Provincial Hunting Survey Respondents, 1975-76 Season 180

68. Big Game Harvest by Species and Wildlife Mangement Unit of Provincial Hunting Survey Respondents, 1975-76 Season . 184

69. Upland Bird Game Harvest By Species and Wildlife Management Unit of Provincial Hunting Survey Respondents, 1975-76 Season 188

70. Migratory Bird Game Harvest by Species and by Wildlife Management Unit of Provincial Hunting Survey Respondents, 1975-76 Season 191

71. Comments on Provincal Hunting Provided by Provincial Survey Respondents, 1975-76 Season 195

72. Significance Between First and Second Mailings on Selected Variables for Provincial Hunting Survey Respondents, 1975-76 Season 197

73. Hunting Experience in the AOSERP Study Area During the 1975-76 Season of Provincial Hunting Survey Respondents, 1975-76 Season 198

74. Rating of Big Game Hunting Experiences in the AOSERP Study Area in Relation to Province-Wide Big Game Hunting Experiences by Provincial Hunting Survey Respondents, 1975-76 Season 199

75. Ratings of Upland Bird Game Hunting Experiences in the AOSERP Study Area in Relation to Province-Wide Upland Bird Game Hunting Experiences by Provincial Hunting Survey Respondents, 1975-76 Season 200

76. Rating of Migratory Bird Game Hunting Experiences in the AOSERP Study Area in Relation to Province-Wide Migratory Bird Game Hunting Experiences by Provincial Hunting Survey Respondents, 1975-76 Season 201

77. Hunting Costs of Provincial Hunting Survey Respondents who Resided in the AOSERP Study Area During the 1975-76 Season 202

LIST OF TABLES (CONTINUED)

Page

78. Extramarket Benefits Per Person Per Day for Big Game Hunting in the AOSERP Study Area by Provincial Hunting Survey Respondents, 1975-76 Season 203

79. Extramarket Benefits Per Person Per Day for Upland Bird Game Hunting in the AOSERP Study Area by Provincial Hunting Survey Respondents, 1975-76 Season 204

80. Extramarket Benefits Per Person Per Day for Waterfowl Hunting in the AOSERP Study Area by Provincial Hunting Survey Respondents, 1975-76 Season 205

81. Days Hunted, Number of Trips, and Party Size for Provincial Hunting Survey Respondents Active in the AOSERP Study Area During the 1975-76 Season 206

82. Hunter Activity and Success by Species in the AOSERP Study Area by Provincial Hunting Survey Respondents, 1975-76 Season 207

83. Location of Hunter Activity by AOSERP Study Area Grid Number of Provincial Hunting Survey Respondents, 1975-76 Season 208

84. Comments on AOSERP Study Area Hunting Provided by Provincial Hunting Survey Respondents, 1975-76 Season . . 209

85. Residences of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 211

86. Age Distribution of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 212

87. Male-Female Distribution of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 213

88. Occupations of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 214

89. Family Size of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 215

90. Family Incomes of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 216

LIST OF TABLES (CONTINUED)

Page

91. Years of Formal Education of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 217

92. Previous Hunting Experience of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 218

93. Previous Provincial Hunting Experience of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 219

94. Previous AOSERP Study Area Hunting Experience of Study Area Hunting Survey Respondents, 1975-76 Season 220

95. Hunting Experiences in Alberta During the 1975-76 Season of Study Area Hunting Survey Respondents, 1975-76 Season . 221

96. Reasons for Hunting Given by Study Area Hunting Survey Respondents, 1975-76 Season 222

97. Licenses Held by Study Area Hunting Survey Respondents, 1975-76 Season 223

98. Hunting Experience in the Study Area during the 1975-76 Season of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 224

99. Rating of Big Game Hunting Experiences by Study Area Hunting Survey Respondents, 1975-76 Season 225

100. Rating of Upland Bird Game Hunting Experiences by Study Area Hunting Survey Respondents, 1975-76 Season 226

101. Ratings of Waterfowl Hunting Experience by Study Area Hunting Survey Respondents, 1975-76 Season 227

102. Extramarket Benefits Per Person Per Day for Moose Hunting Received by Study Area Hunting Survey Respondents, 1975-76 Season 228

103. Extramarket Benefits Per Person Per Day for White-Tailed Deer Hunting Received by Study Area Hunting Survey Respondents, 1975-76 Season 230

104. Extramarket Benefits Per Person Per Day for Mule Deer Hunting Received by AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 231

LIST OF TABLES (CONCLUDED)

Page

105. Extramarket Benefits Per Person Per Day for Upland Bird Game Hunting Received by AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 232

106. Extramarket Benefits Per Person Per Day for Waterfowl Hunting Received by AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 234

107. Hunting Activities of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 235

108. Big Game Hunter Activity and Success fy Species of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season . 236

109. Bird Game Hunter Activity and Success by Species of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 237

110. Big Game Hunting Activity by Grid Number of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 239

111. Upland Bird Game Hunting Activity by Grid Number of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 240

112. Migratory Bird Game Hunting Activity by Grid Number of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 241

113. Game Harvest by Species and by Grid Number of AOSERP Study Area Hunting Survey Respondents, 1975-76 Season . 242

114. Comments on Hunting Provided by Study Area Hunting Survey Respondents, 1975-76 Season 244

115. Significance Between First and Second Mailings on Selected Variables for AOSERP Study Area Hunting Survey Respondents, 1975-76 Season 246

LIST OF FIGURES

Page

1. The AOSERP Study Area 3
2. Map of Alberta Wildlife Management Unit 25
3. Map of AOSERP Study Area Grids 47

ABSTRACT

A socioeconomic evaluation of recreational hunting activity was conducted in the AOSERP study area in 1976. The objective of this project was to ascertain the value of the recreational hunting resource to the residents of the AOSERP study area and compare this value to the province as a whole. This was accomplished by two questionnaires; one sent to 1994 randomly selected wildlife certificate holders in the province of Alberta and the second to all 1630 wildlife certificate holders in the AOSERP study area. These questionnaires attempted to determine socioeconomic characteristics, hunting experience, hunting activity, and the costs and benefits associated with the activity for the two groups.

Results of these questionnaires indicated that, compared to wildlife certificate holders for the province, resident hunters in the AOSERP study area were younger, earned more, had larger families; incurred lower average seasonal cost of hunting, but contributed less to after-market benefits; spent less time hunting on fewer trips of shorter distance; had lower success rate for big game and waterfowl but higher success rate for upland game birds.

ACKNOWLEDGEMENTS

This research project TF 6.1 was funded by the Alberta Oil Sands Environmental Research Program, a joint Alberta-Canada research program established to fund, direct, and co-ordinate environmental research in the Athabasca Oil Sands area of north-eastern Alberta.

The results of this project represent the culmination of efforts on the part of many individuals. Appreciation is extended to those who permitted interviews and responded to mail questionnaires. Interviews were conducted by Laurie Brook, William Dunn, and Linda Westwood. The authors wish particularly to thank Linda Westwood for her work in compiling and coding interview results. Sorting and coding of mail questionnaire returns was undertaken by Dolaine DePape, Virginia Penny, Pegi Gunn-Graham, and Evelyn McElhaney. Special thanks goes to Evelyn McElhaney who also edited, typed, and proofread all four volumes of the project report. Her efforts provided welcome relief to the authors.

The role of the Department of Rural Economy, University of Alberta, and its Chairman, Alf Petersen, is gratefully acknowledged. In particular, the authors acknowledge Clare Shier for computer data processing, Gail Johnston for key punching, Ronn Bence for graphics, and Wendy Williamson for bookkeeping.

The authors wish to thank Dave Neave, Jerry Kemp, and other members of the Terrestrial Fauna Technical Committee and Ron Wallace, Mel Falk, and other members of the Aquatic Fauna Technical Research Committee of the Alberta Oil Sands Environmental Research Program. Their interest, support, and advice were most helpful throughout the duration of the project. The assistance given by Ron Weatherill, Program Co-ordinator, is also gratefully acknowledged.

Finally, the authors wish to extend their gratitude to Carol Ward, Alberta Fish and Wildlife Division, whose role as project co-ordinator and whose assistance at every stage of the project activity was invaluable. Her efforts were vital to the success of the project.

1. INTRODUCTION

This report is Volume III of a four volume set entitled "Socioeconomic Evaluation of the Recreational Use of Fish and Wildlife Resources in Alberta with Particular Reference to the AOSERP Study Area". The four volumes carry the following subtitles: Volume I, Summary and Conclusions; Volume II, Recreational Fishing; Volume III, Recreational Hunting; and Volume IV, Nonconsumptive Recreational Use of Fish and Wildlife.

The project, which began in January 1976, was financed by the Alberta Oil Sands Environmental Research Program. Phase I of the project, the design phase, was carried out by the authors under a contract between the Alberta Oil Sands Environmental Research Program and I.M.P.A.C.T. Environomics Ltd. Phase II of the project, the implementation and analysis phase, was carried out by the authors under a contract between the Alberta Oil Sands Environmental Research Program and the University of Alberta. The work in Phase II was undertaken at the Department of Rural Economy, University of Alberta.

2. BACKGROUND, SCOPE, AND OBJECTIVES

A quantum jump in international oil prices, as well as the deterioration of Canada's balance of trade in oil, has generated a great deal of interest in the oil sands resources of northeastern Alberta in the past few years. There has been a series of proposals to establish oil sands extraction operations. A new oil recovery plant is currently under construction. New programs to design and examine alternative methods for extracting oil from the oil sands are underway. However, along with this activity, there has also been substantial concern about the social and environmental side effects of oil sands development.

Utilizing current technology, oil sands recovery involves gigantic surface mining operations and huge recovery plants. The inevitable results are significant land disturbances and substantial air and water pollution. These effects could alter current and potential resource uses of natural environments, such as outdoor recreation (including hunting and fishing), which are of value to all Canadians and particularly to Albertans. If proper decisions are to be made about the development of oil sands, it is necessary to ascertain the manner in which oil recovery activities will affect the use of other natural resources. Such information is essential input into public policy formulation and implementation if the best interests of Albertans and Canadians generally are to be served by the selection of resource use patterns in northeastern Alberta.

This report presents a socioeconomic evaluation of recreational hunting activity in the AOSERP study area (Figure 1) and compares the results of a similarity oriented evaluation covering the province as a whole. It is one of three reports by the authors which focus on the recreational use of fish and wildlife in the Athabasca Oil Sands area and throughout the province.[1] This report is also one of many studies being carried out under the auspices of

[1]The other two reports deal with recreational fishing and recreational nonconsumptive fish and wildlife use in the AOSERP study area and throughout the province.

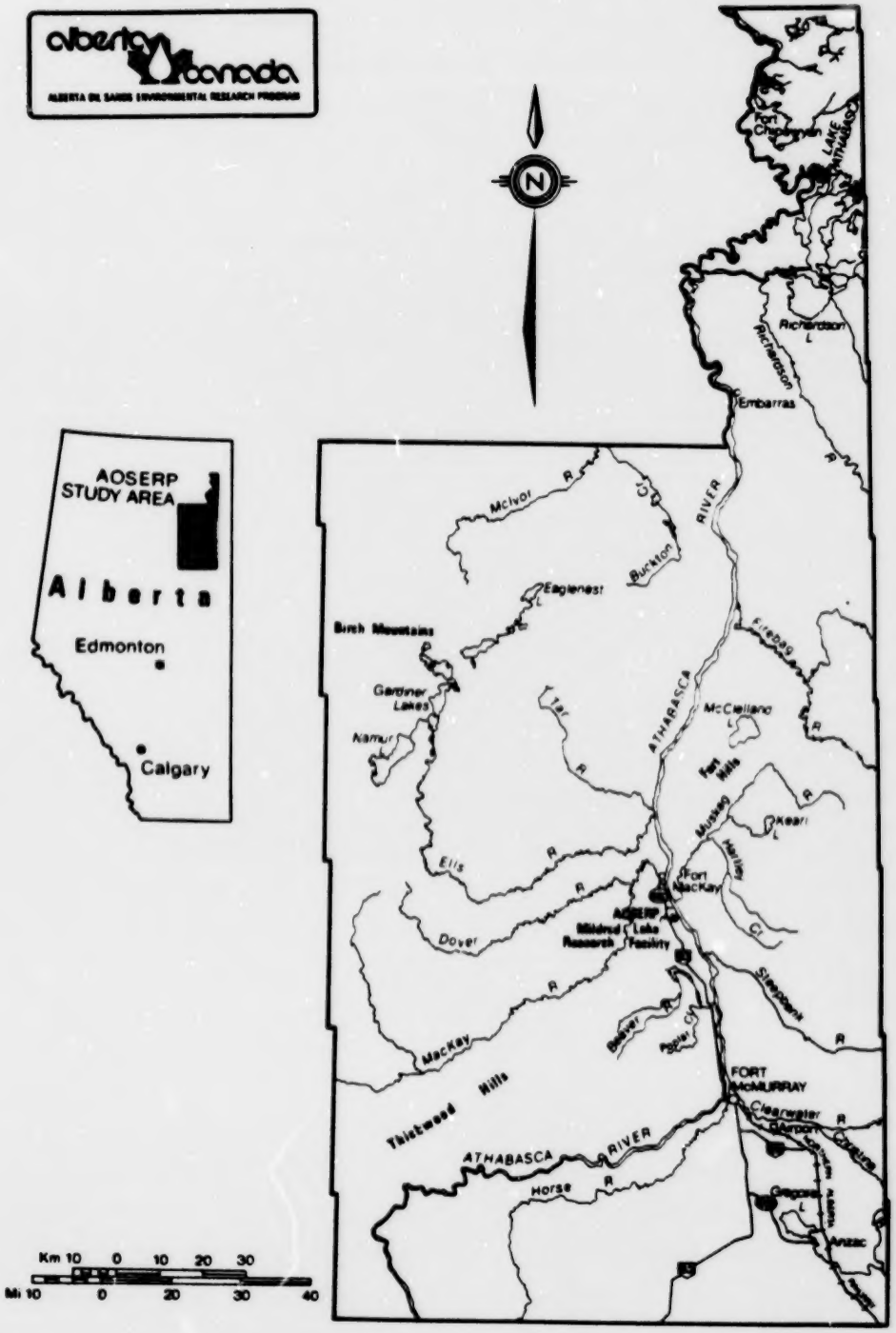


Figure 1. The AOSERP study area.

the Alberta Oil Sands Environmental Research Program (AOSERP) to determine the effects of oil sands development on the environment.

The study reported herein was carried out with the following objectives in mind:

1. To ascertain the socioeconomic characteristics of participants in recreational hunting in the AOSERP study area and throughout the province;
2. To establish a detailed profile of recreational hunting activities in the AOSERP study area and throughout the province, particularly with regard to activity locations, durations, expenses, numbers of wildlife taken and species of wildlife;
3. To determine the number of recreational hunting days expended by Albertans in the AOSERP study area and throughout the province;
4. To examine the desirability of different species of wildlife in the AOSERP study area; and
5. To estimate the value of wildlife resources used for recreational purposes in the AOSERP study area and throughout the province.

The realization of these objectives provides information essential to the assessment of recreational hunting activity. Furthermore, when the socioeconomic information is combined with physical and biological information, it is possible to ascertain the importance of recreational wildlife resource uses in relation to other wildlife resource uses and in relation to other resource use patterns that may alter wildlife habitat.

The results presented in this report provide important data for wildlife management. Hunting alters wildlife populations in varying degrees in different locations. Wildlife harvest is an important management tool. In order to regulate the amounts, locations, and times of hunting activity, it is essential to know where hunters go and what they do. This information is provided.

Beyond hunting activities, this report provides an indication of wildlife values arising from recreational hunting activities. Hunting, like many outdoor recreational activities, is divisible in consumption, and thus the privilege of hunting can be sold at a market price.[1] However, in North America the fugitive nature of game resources has historically led to public ownership of these resources and hunting license fees cannot be considered adequate measures of social benefits.[2]

Recreational hunting activities, like other resource uses for which extramarket benefits typically exist, tend to receive less attention and become displaced by commercial resource uses for which market prices provide comparatively complete and ready measures of use value. Oil production in the Athabasca Oil Sands, for example, may alter wildlife habitat and thus affect wildlife. The oil produced has value reflected in the market place. The displaced wildlife has value but that value, which is also displaced (lost), is not reflected in the market place. Public policy directed at resolving resource use conflicts must reflect both market and extramarket values in determining those resource use patterns that best serve society. For example, commercial resource uses, such as oil extraction, which displace values (largely extramarket) from uses tied to natural environments (such as hunting) incur social costs in the form of displaced or foregone natural environment benefits which must be charged against commercial uses. Historically, this approach has been largely neglected, resulting in resource use imbalances favoring commercial resource uses. This report, therefore, is not only important in providing wildlife management input but also in

---

[1]Other recreation activities, such as viewing scenic areas, are often not divisible in consumption; that is, the enjoyment of an area by one person is not dependent on the enjoyment of the area by others.

[2]Social benefits include all benefits, market and extramarket, that accrue from hunting activities and may be largely, but not solely, incident upon hunters themselves.

providing quantitative estimates of extramarket benefits associated with hunting activities. These estimated benefits should be taken explicitly into account, along with other important information, in formulating public decisions regarding natural resource utilization.

3. RESEARCH DESIGN AND PROCEDURES

3.1 QUESTIONNAIRE DESIGN

The information required to meet the objectives of this study was obtained from samples of Alberta hunters taken during 1976 using mail questionnaires. Two questionnaires were developed and utilized--one to obtain information from a sample of provincial residents holding a wildlife certificate during 1975-76, and the other to obtain information from a sample of residents of the AOSERP study area (Figure 1) holding certificates during the same period. The design of both questionnaires was based upon the earlier work of one of the authors of this report as well as on questionnaires developed and used by others.[1] Initial drafts of the questionnaires used for this report were modified in consultation with members of the Aquatic and Terrestrial Fauna Technical Research Committees of AOSERP. Final drafts were then prepared for printing and mailing. A copy of each questionnaire is contained in Appendix 8.1.

Both questionnaires were designed to obtain biographic information about the recipients. This information included residence, age, sex, occupation, family size, family income, and education (Questions 1-7, both questionnaires, Appendix 8.1). These variables may have significant bearing on hunting activities. For example, income may limit the amount of time taken for hunting and the type of equipment used. Residence will have a bearing on required travel distance which in turn influences the locations and durations of hunting activities. Similiarly, the other variables may influence the behaviour and value of hunting activities of questionnaire respondents.

---

[1]William E. Phillips directed province-wide hunting surveys undertaken by the Department of Rural Economy (formerly the Department of Agricultural Economics and Rural Sociology), University of Alberta, in co-operation with the Alberta Fish and Wildlife Division during 1968 and 1969, for which mail questionnaries were designed and utilized. Results of these surveys appear in several works including: Miller (1971a and 1971b); Moncrieff (1972); Pattison (1972); Pattison and Philips (1972); Phillips and Pattison (1972); Prather 1974; and Snipe (1970). Works elsewhere include: Capel and Pandey (1972); Wennergren (n.d.); Hanus (1974); and Ross (1975).

The balance of the questions in both questionnaires (the province-wide questionnaire and the AOSERP study area questionnaire) sought similar information in regard to times, locations, and durations of hunting trips, travel distances, species sought, hunting successes, ratings, hunting expenses, and extramarket values of hunting experiences. Both questionnaires included a map of the AOSERP study area upon which recipients were asked to pinpoint locations of hunting activities undertaken in the area. No maps were used for activitiy locations elsewhere in the province although recipients were asked to indicate nearest towns, landmarks, or Wildlife Management Units. In addition to providing the above information, recipients were also asked to give any additional comments relating to their hunting experiences.

The information received from questionnaire respondents provided the basis for the following: (1) an assessment of hunting activities in the AOSERP study area and throughout the province; (2) a determination of the number of recreation days; (3) a profile of recreation activities relating to wildlife resource use; (4) an examination of the desirability of different species; and (5) a socioeconomic evaluation of wildlife resources. Each of these items directly reflects the objectives outlined at the beginning of the report.

3.2 SAMPLING DESIGN

Inferences, drawn from the sample questionnaire return results, can be made about the populations of wildlife certificate holders in the province and within the AOSERP study area. The reliability of such inferences depends in part upon the manner in which the recipient samples are drawn. All selections for each sample must be random; that is, each wildlife certificate holder in the population must have the same probability of inclusion in the sample as every other wildlife certificate holder in the population.

Samples of 2,000 names and addresses were sought initially for each of the surveys. The names and addresses of all Alberta resident wildlife certificate holders are stored on computer by the Alberta Fish and Wildlife Division. This amounted to 124,814 individuals holding various combinations of Alberta hunting licenses during 1975-76. Systems personnel of the Division, using their own computer programs, provided random samples of names and addresses for both samples. The sample provided for the province-wide survey consisted of 1,994 random selections from the list of Alberta resident wildlife certificate holders. A program was used to determine the total number of AOSERP study area resident hunters. The total was 1,630 persons. Since this total was less than the specified sample size of 2,000, all 1,630 persons were selected for the oil sands area survey.

3.3 MAIL-OUT PROCEDURES AND RETURN RESULTS

The names and addresses from both samples were entered on a duplicate set of address labels using a Fish and Wildlife Division computer terminal. Each label also included the wildlife certificate number of the person named. Each questionnaire was given a different identification number. The questionnaire numbers were assigned in a consecutive order. A master list indicating the questionnaire number and the wildlife certificate number of the recipient of that questionnaire was drawn up. The purpose of this procedure was to identify those who returned questionnaires, remove their duplicate address labels, and thereby exclude them from a second mailing intended for those remaining who did not respond to the initial mailing. This procedure reduced printing, processing, and postage costs by avoiding an across-the-board second mailing and precluded the propensity of second returns from first mailing respondents. The questionnaires were mailed during June of 1976 along with covering letters (Appendix 8.1) and return envelopes.[1] The second mailing followed the first

[1] Ideally the questionnaires should have been sent during March and April at the close of the 1975-76 season. Because of delays beyond the authors' control, the questionnaires could not be mailed until June.

mailing by approximately three weeks. The returns from both mailings for both surveys were collected by AOSERP and turned over to the authors for processing.

The province-wide survey involving 1,994 questionnaires in the first mailing resulted in a return of 458 questionnaires of which 21 were returned unopened (Table 1). The second mailing of 1,587 questionnaires resulted in additional returns of 326 of which 53 were returned unopened. In total, 74 questionnaires were returned unopened, thus reducing the effective sample size from 1,994 to 1,920. A total of 710 responses were made, resulting in an effective sample response of 37.0 percent (Table 1).[1]

The AOSERP study area survey involving 1,630 questionnaires in the first mailing resulted in a return of 246 returns, of which 32 were unopened (Table 1). The second mailing of 1,430 questionnaires resulted in additional returns of 312, of which 105 were returned unopened. In total, 137 questionnaires were returned unopened, thus reducing the effective sample from 1,630 to 1,493.[2] A total of 421 responses were made, resulting in an effective sample response of 28.2 percent (Table 1).

The survey procedures used do not allow for an accurate check on nonresponse bias; that is, there is no precise way of determining whether or not respondents are as representative of the population as the nonrespondents. For example, it is not clear

---

[1]The returns were in fact higher. However, approximately 275 returns were inadvertantly destroyed and consequently were never turned over to the authors for processing. Since these returns included responses from both hunting surveys as well as two fishing surveys and one nonconsumptive fish and wildlife survey (all being carried out in connection with the recreational use of fish and wildlife project) the extent of reduction in each survey could not be determined. Thus, the results presented here stand.

[2]The greater reduction in effective sample size compared to that of the province-wide survey is in large measure due to the higher proportion of transient persons in the AOSERP study area compared to the province as a whole.

Table 1. Sample responses to hunting surveys, 1976.

	Province-Wide Survey			AOSERP Study Area Survey		
	First Mailing	Second Mailing	Cumulative Mailing	First Mailing	Second Mailing	Cumulative Mailing
Population	124,814	124,814	124,814	1,630	1,630	1,630
Number Sampled	1,994	1,587	1,994	1,630	1,430	1,630
Percent Sampled	1.6	1.3	1.6	100.0	87.7	100.0
Questionnaires Returned Unopened	21	53	74	32	105	137
Effective Sample Size	1,973	1,534	1,920	1,598	1,325	1,493
Effective Percent Sampled	1.6	1.2	1.5	98.0	81.3	91.6
Questionnaires Returned	437	273	710	214	207	421
Percent of Effective Sample Responses	22.1	17.8	37.0	13.4	15.6	28.2

that the respondents tended to have greater hunting success than non-respondents. If this were indeed the case, then any inference to the population would result in an upward bias in hunting success. Ideally, a small subsample taken from the mail sample for personal interview, from which a 100 percent response would be forthcoming, could be used to test for nonresponse bias. This procedure is extremely time consuming and costly and for these reasons was not undertaken. Some indication of nonresponse bias, however, can be derived from a comparison of results between first and second mailings. Respondents to the second mailing represent a portion of nonrespondents to the first mailing. If a nonresponse bias exists, some indication of this should appear in the comparison of mailings. Although less than ideal, this procedure is feasible and provides some insights into the possible problem of nonresponse bias.

3.4 THE PROCESSING OF RESPONSES

The returns from the two hunting surveys were collected and sorted for coding. Codes were developed for all possible answers to each of the questions presented in the questionnaires. These codes were used to code the answers contained in each questionnaire. The coded responses were checked and submitted for key punching on data processing cards. The punched cards were verified and the coded data read into the University of Alberta's central computing system for analysis.

4. PROVINCIAL HUNTING SURVEY RESULTS

Among the 710 province-wide survey questionnaires returned (Table 1), 680 were usable. Detailed results of the survey returns are contained in Appendix 8.2 and summarized and discussed in this section of the report. A comparison between first and second mailings for selected variables was made to see if there was evidence of non-response bias. There was no significant difference between the results of the two mailings for six of the eleven variables. However, results for the remaining five variables indicated that there was a difference (Appendix 8.2, Table 72). Therefore, the results are indeterminate in supporting or negating the assumption that non-response bias does not exist. For lack of strong evidence to the contrary, nonresponse bias is assumed not to exist. The results of both mailings are combined and inferences from the sample of 680 respondents about the population of 124,814 resident provincial hunting license holders during the 1975-76 season are made directly; that is, the 680 sample respondents are taken as representative of the population without the use of any adjustments or weighting procedures.

4.1 SOCIOECONOMIC CHARACTERISTICS

Approximately 52 percent of the 1975-76 hunting license holders reside in the nine most populated communities in the Province. Edmonton and Calgary account for 38 percent and the communities of Camrose, Fort McMurray, Grande Prairie, Lethbridge, Medicine Hat, Red Deer, and Sherwood Park account for 14 percent. The residence of the remaining license holders are dispersed throughout the province (Appendix 8.2, Table 9).

The age of license holders ranges from 14 to 78 years with an average of 34.19 years. The median age is 31.08 years and the modal age is 18.00 years. The age distribtuion has a sample standard deviation of 11.33 years (Appendix 8.2, Table 10).

The male-female breakdown of provincial hunting survey respondents indicates that 97.7 percent of the license holders are male and 2.3 percent female (Appendix 8.2, Table 11).

Among 17 occupation categories, tradesmen accounted for 16.8 percent followed by professional and technical occupations, 12.9 percent, and labourers, 10.8 percent. The distribution of license holders in other categories was less than 10 percent (Appendix 8.2, Table 12).

Family size ranged from one to nine persons in a household, the average size being 3.52 persons. The mode was 4.00 persons, the median 3.16, and the standard deviation 1.46 persons (Appendix 8.2, Table 13).

Forty-six percent of the provincial license holders had annual family incomes between $10,000 and $20,000. The average annual income per family was $18,349. With an average family size of 3.52 persons, the per capita income is an estimated $5,213. Approximately 22 percent of the license holders had annual family incomes of $10,000 or less and 32 percent of the license holders had annual family incomes of more than $20,000 (Appendix 8.2, Table 14).

The distribution of formal education of provincial hunting survey respondents indicates that 24.2 percent attained high school matriculation, 18.2 percent had at least one year of university, and 18.4 percent completed at least one year of formal technical training, bringing the total to 60.8 percent. Among the provincial license holders, 98.2 percent had at least seven years of formal education (Appendix 8.2, Table 15).

In summary, a typical 1975-76 hunting license holder in Alberta is 34 years of age, has achieved 12 years of formal education, is a member of a family of three or four persons, receives a family income of $18,349, and tends to be an urban male.

4.2 HUNTING EXPERIENCE, MOTIVATION AND LICENSES HELD

Among the 124,800 resident Alberta hunting license holders in the 1975-76 season, 94.1 percent, or 117,400 persons (by inference), had hunted for sport prior to that time. The remaining 5.9 percent had no such previous experience (Appendix 8.2, Table 16). The number of resident license holders who hunted in Alberta prior to the 1975-76 season amounted to 87.4 percent or 109,100 persons, while the remaining 12.6 percent had no such previous experience (Appendix 8.2, Table 17). Prior to the 1975-76 season, 5.0 percent (6,240 persons) of the license holders had hunted in the AOSERP study area at least once. The remaining 95.0 percent of license holders had never hunted in the area (Appendix 8.2, Table 18).

Each questionnaire recipient was asked to provide reasons for hunting and to rank the reasons given so that they could be scored. Among the 642 respondents[1] who gave reasons for hunting, enjoyment as a reason for hunting accounted for 43.9 percent of the total score followed by hunting for meat, 36.9 percent, hunting for trophy, 15.8 percent, and all other reasons combined, 3.4 percent (Appendix 8.2, Table 19).

Alberta hunting license holders, on average, held 2.42 different kinds of Alberta hunting licenses during the 1975-76 season. The proportions of license holders holding different license include the following: bird game, 64.1 percent; migratory bird, 58.4 percent; white-tailed deer, 28.8 percent; moose, 28.5 percent; mule deer, 28.4 percent; elk, 17.1 percent; moose (Zone 1), 6.5 percent; and black bear, 5.6 percent. Remaining licenses held each represented less than 2.0 percent of the total number of licenses held (Appendix 8.2, Table 20).

During the 1975-76 hunting season, 82.2 percent of the license holders hunted at least once; that is, among the 124,800 hunting license holders residing in Alberta, 102,600 hunted at

---

[1]Among the 680 usable responses, 38 respondents did not provide reasons for hunting.

least once during the 1975-76 season. The remaining 22,200 (17.8 percent) license holders did not hunt during the season although they had purchased at least one kind of hunting license (Appendix 8.2, Table 21).[1]

The balance of this section of the report focuses on the 82.2 percent of resident provincial hunting license holders who actually hunted during the 1975-76 season. The sample size is 559 survey respondents and the estimated population of active license holders is 102,600 persons (Appendix 8.2, Table 21). The reason for this focus is the fact that the subsequent information relates to hunting activities. Those respondents who did not hunt during the 1975-76 season were asked only to provide information pertaining to socioeconomic characteristics and hunting experience discussed to this point and return the questionnaire (Appendix 8.1, provincial survey questionnaire, item 11).

Among active resident hunters, 58.3 percent hunted big game. Two thirds of the big game hunters rated their hunting experiences fair or better; 14.1 percent rated their experiences as very good, 23.8 percent as good, and 28.5 percent as fair. The remaining respondents rated their experiences as poor (24.8 percent) or very poor (8.8 percent) (Appendix 8.2, Table 22).

Among the active resident hunters, 32.0 percent hunted upland bird game. Two thirds of the upland bird game hunters rated their hunting experiences fair or better; 8.1 percent rated their experiences as very good, 23.3 percent as good, and 34.9 percent as fair. The remaining respondents rated their experiences as poor (23.3 percent) or very poor (10.4 percent) (Appendix 8.2, Table 23).

---

[1]This result suggests that the option to hunt for these 22,200 persons was worth at least the amount spent on licenses even though they did not exercise that option. The extramarket portion of this option value has not been estimated nor has the extramarket hunting option value of non-license holders been estimated. Consequently, the amount spent on licenses by the 22,200 persons (approximately $155,400) is a market portion of the total option value to hunt and may only be a small portion of the annual total option value (market plus extramarket benefits).

Among the active resident hunters, 60.3 percent hunted migratory bird game. Nearly 86 percent of the waterfowl hunters rated their hunting experiences fair or better; 19.5 percent rated their experiences as very good, 38.4 percent as good, and 27.7 percent as fair. The remaining respondents rated their experiences as poor (9.8 percent) or very poor (4.6 percent) (Appendix 8.2, Table 23).

4.3 HUNTING ACTIVITY COSTS

Active resident hunters during the 1975-76 season spent an average of $194.21 in total variable costs for the season (Table 2). One half of these individuals incurred average total variable costs of $120.00 or less. These costs included the following: travel costs (gasoline, oil, air fare, etc.), $77.79 per person; lodging costs (hotels, motels, camping fees, etc.), $13.16 per person; food costs (restaurant meals and food purchased for hunting trips), $41.34; beverage costs, $13.06 per person; rental costs, $3.23 per person; guiding costs, $1.39 per person; ammunition costs, $29.69 per person; hunting service costs (packer fees, taxidermy, etc.), $7.72 per person; and miscellaneous costs (hunting equipment repairs, etc.), $6.83 per person (Table 2). Among all resident hunters, 58.3 percent engaged in big game hunting and incurred total variable costs of $153.36 per person per season (Table 2 and Appendix 8.2, Tables 25 through 34). Upland bird game hunters (32.0 percent) incurred total variable costs of $100.82 per person per season (Table 2 and Appendix 8.2, Tables 35 through 44) and waterfowl hunters (60.3 percent) incurred total variable costs of $120.30 per person per season (Table 2 and Appendix 8.2, Tables 45 through 54). The weighted average total variable costs for all hunting combined, as indicated above, was $194.87 per person per season.

License fees vary from hunter to hunter depending on the combination of hunting licenses purchased. Resident hunters during the 1975-76 season spent on average $13.21 in license fees (Table 2). Those hunters (58.3 percent) active in big game hunting spent an average of $9.56 per person per season, those active in upland bird

Table 2. Hunting costs per person for provincial hunting survey respondents, 1975-76 season.[a]

	Average Costs per Person per Season			
	Big Game	Upland Bird Game	Waterfowl	All Hunting Combined[b]
Travel Costs	$ 65.56	$ 37.10	$ 45.93	$ 77.79
Lodging Costs	8.83	7.97	9.06	13.16
Food Costs	39.86	19.09	19.89	41.34
Beverage Costs	9.99	8.36	7.56	13.06
Rental Costs	1.23	3.55	2.29	3.23
Guiding Costs	1.50	1.43	0.09	1.39
Ammunition Costs	12.34	14.29	29.73	29.69
Hunting Service Costs	9.91	3.76	1.23	7.72
Miscellaneous Costs	4.14	5.27	4.52	6.83
TOTAL VARIABLE COSTS	$153.36	$100.82	$120.30	$194.21
LICENSE FEES[c]	9.56	6.50	7.50	13.21
CAPITAL HUNTING COSTS[d]				189.87
TOTAL HUNTING COSTS				397.29

[a]Source: Appendix 8.2, Tables 25 through 55.

[b]Not all respondents hunted big game, upland bird game, or waterfowl exclusively. In fact 58.3 percent hunted big game, 32.0 percent hunted upland bird game, and 60.3 percent hunted waterfowl.

[c]Includes a wildlife certificate of $3.00 per person and a resource development stamp at $1.00 per person.

[d]Includes only that portion of the 1975-76 season capital purchases which are used solely for hunting purposes; e.g., for a vehicle purchased for $5,000 and used 40 percent of the time for hunting purposes, the capital cost would be $2,000. Since most respondents made no capital purchase during the 1975-76 season, the average per person is much lower than if these same respondents were excluded from the calculations.

game hunting (32.0 percent) spent an average of $6.50 per person per season, and those active in waterfowl hunting spent an average of $7.50 per person per season (Table 2).

Each year a portion of Alberta resident hunters incur costs for the purchase of items used, at least in part, for hunting purposes over two or more hunting seasons. During the 1975-76 season, 42.6 percent of the hunters made such purchases, ranging from knives, binoculars, clothing, and decoys to rifles, shotguns, and motor vehicles (Appendix 8.2, Tables 55 and 56). Many of these items are used exclusively for hunting purposes. Other items are not used exclusively for hunting, in which case only portions of the purchase price of these items are allocated to hunting costs on the basis of the percentages of time these items are used for hunting purposes. For example, a vehicle purchased for $5,000 and used 40 percent of the time for hunting purposes represents a hunting capital cost of $2,000. Normally such a cost to an individual would be spread over the number of hunting seasons in which the item was used. For example, if the vehicle mentioned above is used for ten seasons, then the capital cost per season would be $200.00. However, an alternative procedure in this study was used to arrive at capital hunting costs.

Capital hunting costs for the 1975-76 hunting season amounted to $189.87 per person (Table 2 and Appendix 8.2, Table 55). This figure is derived by summing all 1975-76 capital purchase costs adjusted for percent of time used for hunting and dividing by the total number of active hunting respondents.[1] This result means that each season an individual will, on average, spend $523.74 on new purchases to replace or augment capital items purchased in previous seasons or to purchase capital items for the first time. Those individuals active during the 1975-76 season who made no such purchases (57.4 percent) have done so in previous seasons or will

---

[1]$104,998.00 divided by 553 equals $189.87 (See Appendix 8.2, Table 55).

do so in the future. Hence, the capital hunting cost figure presented here would be approximately the same as a figure based on annual depreciation amounts of individuals' capital hunting items.

Total variable costs, license fees, and capital costs combined make up total hunting costs, which during the 1975-76 season averaged $397.29 per person (Table 2). The average number of days hunted per person during the 1975-76 season was 7.13 (Appendix 8.2, Table 61). Hence, total hunting costs per person per day amounted to $55.72, of which total variable costs accounted for $27.24 per person per day, license fees accounted for $1.85 per person per day, and capital costs accounted for $26.63 per person per day.

On the basis of an estimated 102,600 active resident hunting license holders during the 1975-76 hunting season, total variable hunting costs (expenditures) amounted to $19,925,595 for that season. License fees and capital hunting costs (expenditures) amounted to an additional $20,836,360, thus bringing the total expenditures by resident hunters in Alberta during the 1975-76 season to $40,761,955.

4.4 HUNTING ACTIVITY BENEFITS

The value of hunting activity over and above hunting costs constitutes extramarket benefits. Among all resident hunters, the 58.3 percent who hunted big game received, on average, $31.58 per day or $200.85 per season in such benefits (Table 3 and Appendix 8.2, Table 57). The 32.0 percent who hunted upland bird game received, on average, $21.60 per day or $115.13 per season (Table 3 and Appendix 8.2, Tables 58 and 59). The weighted average extramarket benefits for all hunting combined was $33.24 per person per day or $237.02 per person per season (Table 3). Based on the estimated 102,600 active resident hunting license holders during the 1975-76 hunting season, the annual benefits from hunting, over and above the total expenditures, amount to $24,318,250.

Table 3. Benefits per person from hunting activity for provincial hunting survey respondents, 1975-76 season.[a]

Item	Average Benefit per Person per Season			
	Big Game	Upland Bird Game	Water-fowl	All Hunting Combined
Extramarket Benefits[b]	$200.85	$157.63	$115.13	$237.02
Total Value Attributable to Wildlife Resources[c]	210.41	164.13	122.63	250.23

[a]Source: Appendix 8.2, Tables 57, 58, 59, 62, 63, and 64.

[b]Average extramarket benefits per person per day times the number of days per person per season.

[c]Consists of extramarket benefits plus license fees.

The value of the wildlife resource to active resident hunters consists of a market component (the license fee) (Table 2) and an extramarket component (the extramarket benefit) (Table 3). On this basis, the annual value of Alberta's big game resources to active big game hunters is $210.41 per person, the annual value of Alberta's upland bird game resources to active upland bird game hunters is $164.13 per person, and the annual value of Alberta's waterfowl resources to active waterfowl hunters is $122.63 per person. The annual value of all Alberta wildlife resources to all active hunters combined is $250.23 (Table 3).[1] Province-wide, this amounts to an annual value of $25,673,600. This annual value does not include the recreational or option value of the wildlife resource to those residents who do not hunt nor the recreational or option values to other Canadians and non-Canadians.[2] Furthermore, it does not include the value of the provincial wildlife resources from commercial and other nonrecreational uses.

The extramarket benefits coupled with the license fees represent an annual willingness to pay for wildlife resources for the purpose of resident recreational hunting. Questionnaire recipients in the survey were asked, in addition to willingness to pay, to indicate how much they would have had to be paid not to hunt for one year; that is, to provide an indication of compensation benefits. The average amount per person per year is $558.60 (Appendix 8.2, Table 60). The annual total for the Province is $57,312,360. Willingness to pay benefits are about 45 percent of the compensation benefits. This result is quite realistic since willingness to pay is limited in part to income, whereas compensation benefits are not. In terms of resource evaluation, willingness to pay is usually the appropriate measure of benefits.

---

[1]The value of all expenditure items are assumed to equal their cost. If, in fact, the value differs from the cost then respondents are assumed to have adjusted their extramarket benefits accordingly.

[2]Minimum option value is estimated at $155,400. See footnote 1, page 16.

4.5 HUNTING ACTIVITY

Resident hunters active throughout the Province during the 1975-76 hunting season spent, on average, 7.13 days hunting (Appendix 8.2, Table 61). This involved an average of 4.50 trips with a duration of 1.58 days per trip. Mode, median, standard deviation, and range for all three averages as well as party size and distance travelled are given in Appendix 8.2, Table 61. On the basis of the estimated 102,600 resident hunters during the 1975-76 season, total resident recreation days of hunting amounted to 731,538 days and the total number of hunting trips totaled 461,700. The average party size per trip was 2.67 persons.

Each active resident hunter travelled an average of 931.53 km (578.48 miles) or 207 km (128.55 miles) per trip (Appendix 8.2, Table 61). The average distance from residence to hunting site was 103.51 km (64.28 miles). In terms of total miles travelled for all active resident hunters during the 1975-76 season, the combined distance was 95,574,956 km (59,352,048 miles).

4.5.1 Big Game Hunting Activity

The total number of big game animals taken averaged 37 per 100 resident big game hunters (Appendix 8.2, Table 62). Each hunter spent an average of 6.36 days on 3.05 trips for 2.09 days per trip. The average party size was 2.39 persons per trip and the total distance travelled averaged 794.2 km (493.2 miles) for an average of 260.4 km (161.7 miles) per trip per person (Appendix 8.2, Table 65).

The combined total number of big game animals taken based on the inferred 59,816 resident big game hunters (58.3 percent of 102,600 active hunters) active during the 1975-76 season amounted to 22,382 animals. Of this total number of big game animals bagged, mule deer accounted for 30.17 percent; moose, 23.28 percent; white-tailed deer, 20.69 percent; elk, 11.21 percent; antelope, 7.76 percent; deer unspecified, 4.31 percent; black bear, 1.72 percent, and bear unspecified, 0.86 percent (Appendix 8.2, Table 62). All deer combined accounted for 55.17 percent and all bear combined accounted

for 2.59 percent. Although both bighorn sheep and caribou were sought by some of the sample respondents, none was bagged. In terms of province-wide harvest, each of these species probably accounts for less than 1.00 percent of all game animals taken by resident hunters. The total number of trips taken for each species represents the number of times that species has been sought during the 1975-76 season. Deer, moose, and elk are by far the most sought after big game. Species sought, in descending order of preference, are as follows: deer, 48.91 percent (consisting of white-tailed deer, 21.33 percent, mule deer, 16.96 percent, and deer, unspecified, 10.62 percent); moose, 24.79 percent; elk, 20.35 percent; bear 3.99 percent (consisting of black bear, 2.11 percent and bear, unspecified, 1.88 percent); antelope, 0.98 percent; bighorn sheep, 0.83 percent; and caribou, 0.15 percent.

The geographical distribution of big game hunting activities is given by Wildlife Management Unit (WMU) for 310 survey respondents in Appendix 8.2, Tables 65 and 68. The number of respondents represents 51.83 percent of the estimated 59,816 resident big game hunters active in 1975-76. The sample raising factor to convert "number of respondents" in Table 65 and "number of animals taken" in Table 68 to population estimates is 192.95. The location of each WMU is given in Figure 2. An example, using WMU 110, located in Figure 2, illustrates the procedure. Table 65 indicates 12 respondents hunted big game in WMU 110. The estimated total number of big game hunters in WMU 110 during the 1975-76 season is 12 x 192.95 or 2,315 persons. Each of the 2,315 persons hunted big game an average of 4.08 days on 3.17 trips for an average of 1.29 days per trip. The average party size was 2.68 persons. Each of the 2,315 persons travelled a total of 680.4 km (422.5 miles) or 214.8 km (133.4 miles) per trip in connection with WMU 110 big game hunting activity and bagged an average of 0.42 animals. Table 68 further indicates that three mule deer, one white-tailed deer, and one elk were taken. The estimated totals for WMU 110 during the 1975-76 season are 3 x 192.95 or 579 mule deer, 1 x 192.95 or

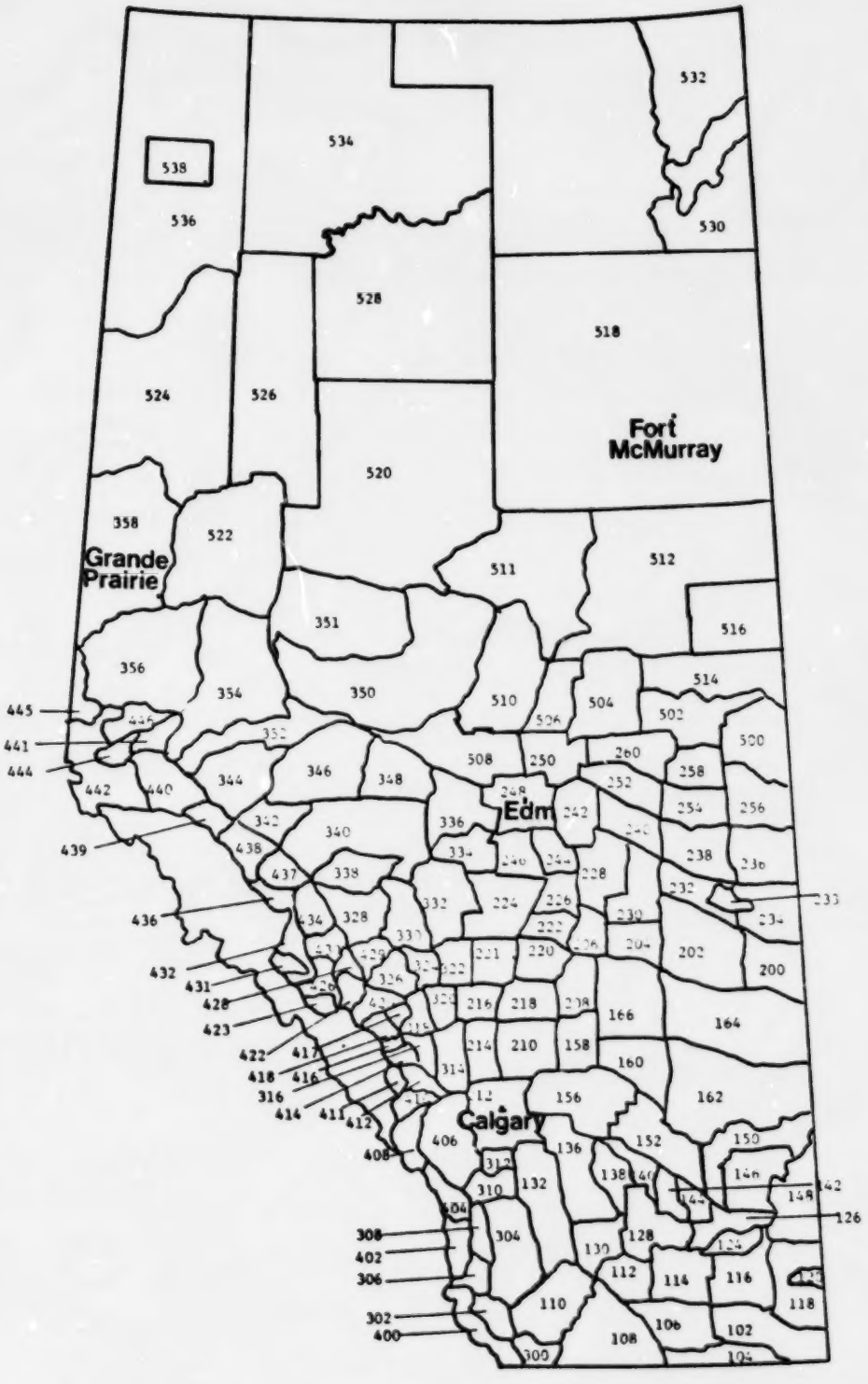


Figure 2. Map of Alberta Wildlife Management Units.

193 white-tailed deer, and 1 x 192.95 or 193 elk, for an estimated total of 965 big game animals. The larger the number of survey respondents and number of animals taken for a given WMU, the more reliable the estimates of population totals. Consequently, greater caution should be used in interpreting estimates for WMU locations in which the number of respondents are few, or in many instances, as low as one, and in which the number of animals taken are low as well (Appendix 8.2, Tables 65 and 68). The presence of 0's suggests that the number of big game taken is probably less than 200 animals. Those WMU locations indicated in Figure 2 but not represented in Tables 65 and 68 in Appendix 8.2 were not hunted for big game by any of the 310 survey respondents. This is not to suggest that big game hunting activity is void in these WMU locations, but rather, the total number of hunters and number of animals taken in each one during the 1975-76 season was low in relation to those WMU locations that are represented (probably ranging between 0 and 200 in both cases).

Each big game hunter, during the 1975-76 season, bagged an average of 0.37 animals in an average of 1.5 WMU locations. The average taken per person (hunter success rate) per WMU is 0.25 animals. The big game hunter success rates among the 97 WMU locations represented range from 0.00 to 1.50 animals per person (Appendix 8.2, Table 65). The following 36 WMU locations (Figure 2) were above average in hunter success rates: 102, 104, 108, 110, 114, 116, 118, 126, 130, 132, 140, 142, 150, 152, 156, 158, 164, 166, 204, 206, 214, 222, 230, 236, 244, 248, 300, 304, 344, 346, 406, 516, 520, 522, 524, and 526. On average, big game hunters were active in a WMU in which 228 big game animals were taken during the 1975-76 season. The number of hunters ranged from 193 to 4,824 persons. The following 30 WMU locations were above average in number of active big game hunters: 108, 110, 132, 158, 212, 220, 238, 302, 304, 310, 312, 320, 322, 328, 340, 342, 348, 350, 351, 352, 358, 408, 438, 440, 508, 511, 512, 518, 522, and 524 (Appendix 8.2, Table 65). The following 27 WMU locations were above average in

the total number of animals taken: 102, 104, 108, 110, 132, 150, 158, 166, 206, 214, 220, 222, 233, 300, 302, 304, 310, 312, 322, 340, 350, 352, 358, 408, 512, 522, and 524 (Appendix 8.2, Table 68). Those WMU locations which were above average in hunter success rates, total number of hunters and total number of animals taken are as follows: 108, 110, 132, 158, 304, 522, and 524. These seven WMU locations represent 7.2 percent of the 97 WMU locations represented.

4.5.2 Upland Bird Game Hunting Activity

The total number of upland birds taken averaged 7.56 per resident upland bird game hunter (Appendix 8.2, Table 63). Each hunter spent an average of 4.13 days on 2.58 trips for 1.60 days per trip. The average party size was 2.47 persons per trip and the total distance travelled averaged 634.5 km (394.0 miles) for an average of 246.2 km (152.9 miles) per trip per person (Appendix 8.2, Table 66).

The combined total number of upland birds taken, based on the inferred 32,832 resident upland bird game hunters (32.0 percent of 102,600 active hunters) active during the 1975-76 season, amounted to 248,210 birds. Of this total number of birds bagged, grouse accounted for 67.71 percent (consisting of grouse unspecified, 31.60 percent, ruffed grouse, 25.54 percent sharptailed grouse, 8.31 percent, spruce grouse, 1.90 percent, and sage grouse, 0.36 percent); pheasant, 24.07 percent; partridge, 8.05 percent; and ptarmigan unspecified, 0.17 percent (Appendix 8.2, Table 63).

In terms of the number of hunting trips for each species, grouse and pheasant were clearly the most preferred. Species sought, in descending order of preference, are as follows: grouse, 58.37 percent (consisting of grouse unspecified, 30.47 percent, ruffed grouse, 20.70 percent, sharptailed grouse, 5.35 percent, spruce grouse, 1.40 percent and sage grouse, 0.47 percent; pheasant, 36.05 percent; partridge, 5.35 percent; and ptarmigant unspecified, 0.2 percent.

The geographical distribution of upland bird game hunting activities is given by WMU for 163 survey respondents in Appendix 8.2, Tables 66 and 69. The number of respondents represent 49.65 percent of the estimated 32,832 resident upland bird game hunters active in 1975-76. The sample raising factor to convert "number of respondents" in Table 66 and "number of birds taken" in Table 69 to population estimates is 201.42. The location of each WMU is given in Figure 2. The procedure for arriving at population estimates for each WMU is the same as that illustrated for big game above. Again, caution should be used in interpreting estimates for WMU locations in which the number of respondents and number of birds taken are low. The presence of 0's suggests that the number of upland birds taken are probably less than 200 birds. Those WMU locations indicated in Figure 2 but not represented in Tables 66 and 69 of Appendix 8.2 were not hunted for upland bird game by any of the 163 survey respondents. This is not to suggest that upland bird game hunting activity is void in these WMU locations, but rather, the total number of hunters and number of birds taken in each one during the 1975-76 season are low in relation to those WMU locations that are represented (probably ranging between 0 and 200 in both cases).

Each upland bird game hunter, during the 1975-76 season, bagged an average of 7.56 birds in an average of 1.3 WMU locations. The average take per person (hunter success rate) per WMU is 5.82 birds. The upland bird game hunter success rates among the 75 WMU locations represented range from 0.00 to 90.00 birds per person (Appendix 8.2, Table 66). The following 27 WMU locations (Figure 2) were above average in hunter success rates: 130, 132, 136, 142, 148, 150, 156, 164, 200, 204, 238, 252, 260, 300, 302, 322, 340, 348, 352, 440, 500, 504, 514, 520, 526, 528, and 536. On average, 569 upland bird game hunters were active in a WMU in which 3,311 upland game birds were taken during the 1975-76 season. The number of hunters ranged from 201 to 3,827 persons. The following 25 WMU locations were above average in number of active upland bird game

hunters: 108, 114, 128, 130, 132, 142, 152, 156, 158, 206, 210, 212, 238, 242, 252, 258, 304, 310, 322, 352, 358, 508, 511, 518, and 522 (Appendix 8.2, Table 66). The following 20 WMU locations were above average in the total number of birds taken: 108, 128, 130, 132, 136, 142, 148, 156, 206, 212, 238, 252, 322, 352, 440, 500, 504, 511, 518, and 536 (Appendix 8.2, Table 69). For those WMU locations which were above average in hunter success rates, total number of hunters and total number of birds taken are as follows: 130, 132, 142, 156, 238, 252, 322, and 352. These eight WMU locations represent 10.7 percent of the 75 WMU locations represented.

4.5.3 Migratory Bird Game Hunting Activity

The total number of waterfowl taken averaged 17.74 per resident migratory bird game hunter (Appendix 8.2, Table 64). Each hunter spent an average of 5.33 days on 4.23 trips for 1.26 days per trip. The average party size was 2.62 persons per trip and the total distance travelled averaged 684.4 km (425.0 miles) for an average of 161.7 km (100.4 miles) per trip per person (Appendix 8.2, Table 67).

The combined total number of waterfowl taken based on the inferred 61,868 resident migratory bird game hunters (60.3 percent of 102,600 active hunters) active during the 1975-76 season amounted to 1,097,538 waterfowl. Of this total number of waterfowl bagged, ducks accounted for 90.73 percent (consisting of ducks unspecified, 85.56 percent and mallard ducks, 5.17 percent); and geese accounted for 9.27 percent (consisting of geese unspecified, 8.98 percent, Canada goose, 0.25 percent, and snow goose, 0.04 percent). In terms of the number of hunting trips for each species, ducks were most preferred. Species sought, in order of preference, are as follows: ducks, 67.36 percent (consisting of duck unspecified, 65.55 percent and mallard duck, 1.81 percent), and goose, 32.64 percent (consisting of goose unspecified, 32.33 percent, Canada goose, 0.26 percent, and snow goose, 0.05 percent).

The geographical distribution of waterfowl hunting activities is given by WMU for 321 survey respondents in Appendix 8.2, Tables 67 and 70. The number of respondents represent 51.88 percent of the estimated 61,868 resident waterfowl hunters active in 1975-76. The sample raising factor to convert "number of respondents" in Table 67 and "number of waterfowl taken" in Table 70 to population estimates is 192.74. The location of each WMU is given in Figure 2. The procedure in arriving at populations estimates for each WMU is the same as that illustrated for big game above. Once again, caution should be used in interpreting estimates for WMU locations in which the number of respondents and number of waterfowl taken are low. The presence of 0's suggests that the number of waterfowl taken is probably less than 200 birds. Those WMU locations indicated in Figure 2, but not represented in Tables 67 and 70 of Appendix 8.2 were not hunted for waterfowl by any of the 321 survey respondents. This is not to suggest that waterfowl hunting activity is void in these WMU locations but rather the total number of hunters and number of waterfowl taken in each one during the 1975-76 season are low in relation to those WMU locations that are represented (probably ranging between 0 and 200 in both cases).

Each waterfowl hunter, during the 1975-76 season, bagged an average of 17.74 waterfowl in an average of 1.6 WMU locations. The average take per person (hunter success rate) per WMU is 11.09 waterfowl. The waterfowl hunter success rates among the 86 WMU locations represented ranged from 0.00 to 62.00 waterfowl per person (Appendix 8.2, Table 67). The following 35 WMU locations (Figure 2) were above average in hunter success rates: 102, 108, 112, 130, 138, 144, 158, 164, 200, 204, 206, 214, 220, 222, 226, 228, 230, 234, 236, 238, 240, 242, 246, 248, 252, 256, 258, 336, 358, 500, 502, 508, 512, 534, and 536. On average, 1,151 waterfowl hunters were active in a WMU in which 12,762 waterfowl were taken

during the 1975-76 season. The number of hunters ranged from 193 to 4,048 persons. The following 33 WMU locations were above average in number of active upland bird game hunters: 108, 114, 132, 142, 156, 158, 162, 164, 166, 200, 202, 204, 206, 210, 212, 220, 222, 226, 228, 230, 233, 238, 240, 242, 248, 250, 252, 256, 258, 310, 336, 508, and 522 (Appendix 8.2, Table 67). The following WMU locations were above average in the total number of waterfowl taken: 108, 130, 156, 158, 164, 166, 200, 204, 206, 212, 220, 222, 226, 228, 230, 233, 238, 240, 242, 248, 250, 252, 256, 258, 310, 336, 508, 510, 514, and 522 (Appendix 8.2, Table 70). Those WMU locations which were above average in hunter success rates, total number of hunters, and total number of waterfowl taken are as follows: 108, 158, 164, 200, 204, 206, 220, 222, 226, 228, 230, 238, 240, 242, 248, 252, 258, 336, and 508. These 19 WMU locations represent 22.1 percent of the 86 WMU locations represented.

4.5.4 Summary

There were an estimated 102,600 active resident hunters during the 1975-76 season. Among this total, 59,816 were active in big game hunting, 32,832 were active in upland bird game hunting, and 61,868 were active in waterfowl hunting.

Each hunter spent an average of 7.13 days hunting, for a total of 731,538 days. The number of trips averaged 4.50, for a total of 461,700 trips. Those hunting big game spent an average of 6.36 days per person on 3.05 trips per person. Those hunting upland bird game spent an average of 4.13 days per person on 2.58 trips per person, and those hunting waterfowl spent an average of 5.33 days per person on 4.23 trips per person.[1]

The average party size for all hunting trips was 2.67 persons per trip. Corresponding averages for big game, upland bird game, and waterfowl hunting trips was 2.39 persons per trip, 2.47 persons per trip, and 2.62 persons per trip, respectively.

---

[1]The number of days and trips for big game, upland bird game, and waterfowl taken together are greater than the totals for all hunting combined since many hunters sought combinations of big game, upland bird game, and/or waterfowl on particular trips.

Each hunter, on average, travelled 931.53 km (578.48 miles) for a total of 21,238,695 km (13,189,230 miles) for all hunters during the 1975-76 season. Big game hunters travelled an average of 794.2 km (493.2 miles) per person per season, upland bird game hunters travelled 634.5 km (394.0 miles) per person per season, and waterfowl hunters travelled 684.4 km (425.0 miles) per person per season.

Each big game hunter visited an average of 1.5 Wildlife Management Units and bagged an average of 0.37 big game animals during the 1975-76 season. The number of big game animals bagged by all big game hunters totalled an estimated 22,382 animals, of which 55.1 percent were deer, 23.3 percent were moose, 11.2 percent were elk, 7.8 percent were antelope, and 2.6 percent were bear. In terms of numbers of times sought, deer, moose, and elk are by far the most sought after big game (48.9 percent, 24.8 percent, and 20.4 percent, respectively).

Each upland bird game hunter visited, on average, 1.3 Wildlife Management Units and bagged an average of 7.56 birds during the 1975-76 season. The total number of upland birds bagged by all upland bird game hunters totalled an estimated 248,210 birds, of which 67.7 percent were grouse, 24.1 percent were pheasant, 8.0 percent were partridge, and 0.2 percent were ptarmigan. In terms of numbers of times sought, grouse and pheasant were by far the most sought after upland bird game (58.4 percent and 36.1 percent, respectively).

Each waterfowl hunter visited, on average, 1.6 Wildlife Management Units and bagged an average of 17.74 waterfowl during the 1975-76 season. The total number of waterfowl bagged by all waterfowl hunters totalled an estimated 1,097,538 waterfowl, of which 90.7 percent were ducks and 9.3 percent were geese. In terms of numbers of times sought, both ducks and geese were widely sought after (67.4 percent and 32.6 percent, respectively).

4.6 COMMENTS

Each questionnaire recipient was given an opportunity to make comments which would help in an evaluation of Provincial hunting activity. Among the 559 respondents who hunted in Alberta during the 1975-76 season, 259 gave no comment, 185 provided one comment, and 115 provided two comments. There were a total of 415 comments (Appendix 8.2, Table 71). Among this total number of comments, 221 focused on improvements which could enhance the quality of hunting experiences. Those particular improvements mentioned most frequently recommended shorter or altered hunting seasons, reduced or precluded nonresident hunting, compulsory hunter training programs, and more enforcement. The other reasons given relating to improvements are summarized in Table 71.

In terms of benefits from hunting experiences, 60 comments indicated hunting is priceless or that there are hunting value considerations beyond dollars. Another 45 comments indicated that hunting is a good recreational activity, and an additional 23 comments indicated that the respondents would stop hunting if necessary for wildlife conservation and/or for the good of the sport without compensation. Various other comments made up the balance of the total number and are summarized in Appendix 8.2, Table 71.

4.7 AOSERP STUDY AREA HUNTING ACTIVITY

Among the 559 resident provincial survey respondents who actually hunted in the Province during the 1975-76 season, 12 hunted at least once in the AOSERP study area (Appendix 8.2, Table 73). The estimated total number of Alberta resident hunters active in the AOSERP study area during the season is 2,203[1]

---

[1]Estimated by multiplying the percent of provincial hunters who were active in the study area by the total number of active hunters (2.15 x 102,600 = 2,203).

(Figure 1). Of this total, 1,151 actually resided in the area.[1]

Those provincial respondents active in the study area were asked to rate their hunting experiences in the area in relation to their province-wide hunting experiences. Among those who hunted big game, 80 percent rated study area big game hunting as good as (40 percent) or better than (40 percent) provincial big game hunting as a whole (Appendix 8.2, Table 74). The remaining respondents, 20 percent, rated study area big game hunting as worse than provincial big game hunting as a whole. Among those who hunted upland bird game, 20 percent rated study area upland bird game hunting better than that for the province as a whole, 60 percent rated it as good as that for the province as a whole, and 20 percent as worse than that for the province as a whole (Appendix 8.2, Table 75). Among those who hunted waterfowl, 50 percent rated study area waterfowl hunting as good as waterfowl hunting for the province as a whole and 50 percent rated it as worse than that for the province as a whole (Appendix 8.2, Table 76).

Extramarket benefits for all hunting combined averaged $29.85 per person per day or $140.30 per person per season. Based on the estimated 2,203 provincial hunters active in the study area the annual total extramarket hunting benefits over and above hunting expenses in the study area are $309,081. This amount represents 1.27 percent of the total extramarket benefits for the province as a whole. Extramarket benefits from hunting big game in the study area averaged $25.75 per person per day or $117.68 per person per season (Appendix 8.2, Table 78). Corresponding extramarket benefits for upland bird game hunting in the AOSERP study area are $12.00 per person per day or $12.00 per person per season and for waterfowl hunting are $21.25 per person per day or $72.25 per person per season (Appendix 8.2, Tables 79 and 80).

---

[1]The results of the hunting survey are discussed in detail in the next section of this report. The figure 1,151 is the 70.6 percent proportion of license holders residing in the study area (Table 1) who actually hunted in the study area (Appendix 8.3, Table 98) during the 1975-76 season.

Hunting activities by provincial hunters active in the study area involved an average of 4.7 days per person,[1] 2.1 trips per person,[2] with an average hunting party size of 2.8 persons[3] (Appendix 8.2, Table 81). Based on the estimated 2,203 provincial hunters active in the area, the total number of hunting days in the study area is 10,354 days or 1.42 percent of the provincial total. The total number of trips in the area is 4,626 or 1.00 percent of the provincial total. The average distance travelled is 593.23 km (368.4 miles) per person per season or 282.4 km (175.4 miles) per trip per person (Appendix 8.2, Table 81). The total distance travelled by provincial hunters for AOSERP study area hunting during the 1975-76 season was 13,069,001 km (811,585 miles) or 1.37 percent of the provincial total (Appendix 8.2, Table 81).

Approximately 70 percent of the 2,203 provincial hunters or 1,542 persons active in the study area during the 1975-76 season hunted big game. The success rate was 0.14 animals per person. Only moose were taken by the sample respondents (Appendix 8.2, Tables 82 and 83) and the estimated total number taken was 216 or 0.97 percent of all province-wide big game taken. The success rates and total number of other big game species not represented are probably very low.

Approximately 50 percent of the 2,203 provincial hunters or 1,102 persons who were active in the study area during the 1975-76 season hunted upland bird game. The success rate was 5.2 birds per person. The estimated total number of birds taken is 5,730

---

[1]The average total days hunted is 9.8, of which 48 percent were actually spent hunting in the study area. The average of 9.8 days is higher than the provincial average of 7.13 days.

[2]The average number of days per trip is 2.2 for the study area whereas the provincial average of 1.58 days per trip.

[3]The provincial average party size is 2.67 persons per trip.

(2.31 percent of the provincial total) of which grouse accounted for 80.8 percent, partridge 11.5 percent, and ptarmigan 7.7 percent (Appendix 8.2, Tables 82 and 83).

Approximately 10 percent of the 2,203 provincial hunters or 220 persons who were active in the study area during the 1975-76 season hunted waterfowl. The success rate was probably in the order of 8.0 waterfowl per person (Appendix 8.3, Table 112).[1] The estimated total number of birds taken is 1,760 (0.16 percent of the provincial total) of which ducks accounted for 87 percent and geese, 13 percent.

Comments on AOSERP study area hunting by provincial survey respondents were solicited. Among the 11 persons who provided comments, seven provided one comment and four provided two comments (Appendix 8.2, Table 84). Of particular note is the fact that two of the 15 comments indicated the study area to be a very valuable hunting area and two of the 15 comments indicated that pollution should be kept to a minimum.

Among the 12 respondents who were active in the study area, six resided there during the 1975-76 season. Although the following section deals specifically with survey results of AOSERP study area hunting by area residents during the same season, these six respondents in the provincial survey were singled out to determine their hunting costs since this was not done for the study area hunting survey. The results of study area resident hunting costs are summarized in Appendix 8.2, Table 77. Average total variable costs for all hunting combined was $163.17 per person for

---

[1]The results in Appendix 8.2, Tables 82 and 83 for waterfowl are not reliable since only one respondent hunted waterfowl and happened to have a success rate of 1.00, rather than 8.00 as presented here, which is more typical of waterfowl hunters in the study area as indicated in Appendix 8.3, Table 112. The fact that only one respondent in the sample hunted waterfowl is of correct proportion to the estimated total waterfowl hunters active in the study area.

the season or 84 percent of the provincial average. Average capital hunting costs were $128.54 per person or 68 percent of the provincial average. Average total hunting costs, including license fees, were $304.92 per person for the season or 77 percent of the provincial average. Based on the 1,151 hunters who resided in the study area, total hunting expenditures for the 1975-76 season amounted to $350,963 or 0.86 percent of province-wide hunter costs.

4.8 SUMMARY

Among the approximately 124,814 resident hunting license holders during the 1975-76 hunting season, the average age was 34.19 years, the average family income was $18,349, and the average family size was 3.52 persons. Each person on average held 2.42 different kinds of Alberta hunting licenses and hunted primarily for enjoyment and secondarily for meat. The 102,600 license holders of the 124,814 total who engaged in hunting activities incurred average hunting costs of $397.29, for a provincial total of $40,761,955 for the season. Extramarket benefits over and above these costs amounted to $237.02 per person, for a provincial season total of $24,318,250. These benefits, along with license fees, represent the value of wildlife resources in the Province for actual recreational hunting activity by resident license holders. This value averaged $250.23 per participant, for a provincial total of $25,673,600 for the season.

Of the 102,600 active resident hunters during the 1975-76 season, the average number of recreational hunting days was 7.13 days per person, the average number of trips was 4.50 per person, the average number of days per trip was 1.58 days per person, and the average party size per trip was 2.67 persons. The total number of recreational hunting days for resident hunters in the Province during the 1975-76 season was 731,538 days. The provincial total number of trips was 461,700. Each hunter, on average, travelled 931.53 km (578.48 miles) during the season for

an average of 207.00 km (128.55 miles) per trip. The province-wide total distance travelled by the hunters was 95,574,956 km (59,352,048 miles).

The big game hunter success rate averaged 0.37 animals per big game hunter with the total number of animals taken in the Province during 1975-76 amounting to 22,382 big game animals. Upland bird game hunter success rates averaged 7.56 birds per upland bird game hunter with the total number of birds taken in the Province during 1975-76 amounting to 248,210 upland game birds. The waterfowl hunter success rate averaged 17.74 waterfowl per migratory bird game hunter with the total number taken in the Province during the 1975-76 season amounting to 1,097,538 waterfowl.

5. AOSERP STUDY AREA HUNTING SURVEY RESULTS

Among the 421 AOSERP study area survey questionnaires returned (Table 1), 398 were usable. Detailed results of the survey returns are contained in Appendix 8.3 and summarized and discussed in this section of the report. A comparison between first and second mailings for selected variables was made to see if there was evidence of nonresponse bias. There was no significant difference between the results of the two mailings, supporting the assumption that nonresponse bias does not exist (Appendix 8.3, Table 115). Consequently, the results of both mailings are combined and inferences from the sample of the 398 respondents about the population of approximately 1,630 study area hunting license holders during the 1975-76 season are made directly; that is, the 398 sample respondents are taken as representative of the population without the use of any adjustments or weighting procedures.

5.1 SOCIOECONOMIC CHARACTERISTICS

Most of the AOSERP study area hunting license holders during the 1975-76 season resided in Fort McMurray (92.0 percent). The remaining license holders resided elsewhere within the study area (4.3 percent), elsewhere within the Province (2.7 percent), out of Province (0.5 percent), or in unspecified locations (0.5 percent). Those respondents residing outside the study area were employed or resided there during the 1975-76 season (Appendix 8.3, Table 85).

The age distribution of license holders ranged from 14 to 76 years with an average age of 32.74 years. The median age was 30.88 years and the modal age was 26.00 years. The age distribution has a sample standard deviation of 11.33 years (Appendix 8.3, Table 86).

The male-female distribution of study area hunting survey respondents indicates that 95.1 percent of license holders were male and 4.9 percent female (Appendix 8.3, Table 87).

Among 17 occupation categories, tradesmen accounted for 23.1 percent, followed by managerial occupations, 13.9 percent, operative occupations, 13.6 percent, and professional and technical occupations, 12.3 percent. Miscellaneous occupations comprised 13.1 percent. The distribution of license holders in other categories was less than 7 percent each (Appendix 8.3, Table 88).

Family size ranged from one to nine persons in a household with the average size being 3.78 persons. The mode was 4.00 persons, the median was 3.68 persons, and the sample standard deviation was 1.86 persons (Appendix 8.3, Table 89).

Approximately one half of the study area license holders had annual family incomes between $15,000 and $25,000. The average annual income per family was $19,411. With an average family size of 3.78 persons, the per capita income is an estimated $5,135. Approximately 25 percent of the license holders had annual family incomes of $15,000 or less and 25 percent had annual family incomes of more than $25,000 (Appendix 8.3, Table 90).

The distribution of formal education of study area hunting survey respondents indicates that 21.8 percent attained high school matriculation, 12.0 percent had at least one year of university, and 19.7 percent completed at least one year of formal technical training, bring the total to 53.5 percent. Among the AOSERP study area license holders 94.3 percent had at least seven years of formal education (Appendix 8.3, Table 91).

In summary, a typical 1975-76 hunting license holder in the AOSERP study area is 33 years of age (one year younger than the average provincial license holder), has achieved 12 years of formal education, is a member of a family of three or four persons, tends to be male, and receives a family income of $19,411 per year ($1,062 higher than the average provincial license holder).

5.2 HUNTING EXPERIENCE, MOTIVATION, AND LICENSES HELD

Among the 1,630 study area hunting license holders in the 1975-76 season, 89.1 percent, or 1,452 persons, had hunted for sport prior to that time. The remaining 10.9 percent had no such previous experience (Appendix 8.3, Table 92). The number of study area license holders who hunted in Alberta prior to the 1975-76 season amounted to 82.9 percent, or 1,351 persons, while the remaining 17.1 percent had no such previous experience (Appendix 8.3, Table 93). The proportion of study area license holders who hunted in the area prior to the 1975-76 season amounted to 63.8 percent, or 1,040 persons, while the remaining 36.2 percent had no such previous experience (Appendix 8.3, Table 94). At the close of the 1975-76 season, 91.5 percent, or 1,470 persons, had hunted in Alberta during that season. The remaining 8.5 percent had never hunted in the Province during the 1975-76 season (Appendix 8.3, Table 95).

Each questionnaire recipient was asked to provide reasons for hunting and to rank the reasons given so that they could be scored. Among the 375 respondents[1] who gave reasons for hunting, hunting as a source of meat accounted for 41.5 percent of the total score followed by hunting for enjoyment, 39.0 percent, hunting for trophy, 16.3 percent, and all other reasons combined, 3.2 percent (Appendix 8.3, Table 96).

AOSERP study area license holders, on average, held three different kinds of Alberta hunting licenses during the 1975-76 season. The proportions of license holders holding different licenses include the following: moose, 65.6 percent; bird game, 59.6 percent; migratory bird game, 35.4 percent; moose (Zone 1), 26.1 percent; white-tailed deer, 21.6 percent; black bear, 20.6 percent; mule deer, 7.8 percent; caribou, 2.8 percent; and elk, 2.5 percent. Remaining licenses held each represent 1.0 percent or less of the total number of license holders (Appendix 8.3, Table 97).

---

[1]Among the 398 usable responses, 23 respondents did not provide reasons for hunting.

During the 1975-76 hunting season, 70.6 percent of these license holders hunted at least once in the study area; that is, of the 1,630 hunting license holders residing in the study area, 1,151 hunted at least once in the area during the 1975-76 season. The remaining 479 (29.4 percent) did not hunt in the study area during the season and it is estimated that 139 of the license holders did not hunt anywhere else during the season either, although they had purchased hunting licenses (Appendix 8.3, Table 98).[1]

The balance of this section of the report focuses on the 70.6 percent of study area resident hunting license holders who actually hunted in the area during the 1975-76 season. The sample size is 281 survey respondents and the estimated population of license holders active in the area is 1,151 persons (Appendix 8.3, Table 98). Those respondents who did not hunt in the study area during the 1975-76 season were asked only to provide information pertaining to socioeconomic characteristics and hunting experiences discussed to this point and return the questionnaire (Appendix 8.1, AOSERP study area survey questionnaire, item 11).

Of those study area license holders who actually hunted in the area 85.8 percent hunted big game. Over one half of the big game hunters rated their hunting experiences fair or better; 5.7 percent rated their experiences as very good, 22.3 percent as good, and 25.3 percent as fair. The remaining respondents rated their experiences as poor (31.4 percent) or very poor (15.3 percent) (Appendix 8.3, Table 99).

Among the active study area resident hunters, 34.5 percent hunted upland bird game. Over 85 percent of the upland bird game hunters rated their hunting experiences fair or better; 15.9 percent rated their experiences as very good, 35.2 percent as good, and

---

[1]This result suggests that the option to hunt for the 139 persons was worth at least the amount spent on licenses even though they did not exercise that option. The extramarket portion of this option value has not been estimated. Consequently, the amount spent on licenses by the 139 persons of approximately $973 (0.63 of the provincial total) is a market portion of the option value (market plus extramarket benefits).

34.1 percent as fair. The remaining respondents rated their experiences as poor (8.0 percent) or very poor (6.8 percent) (Appendix 8.3, Table 100).

Among the active study area resident hunters, 11.0 percent hunted migratory bird game. Nearly two thirds of the waterfowl hunters rated their hunting experiences fair or better; 13.3 percent rated their experiences as very good, 23.3 percent as good, and 26.8 percent as fair. The remaining respondents rated their experiences as poor (23.3 percent) or very poor (13.3 percent) (Appendix 8.3, Table 101).

5.3 HUNTING ACTIVITY COSTS AND BENEFITS

Recipients of the AOSERP study area hunting survey questionnaire were not asked to provide hunting cost estimates. However, six of the 559 respondents (1.1 percent) to the provincial hunting survey (previous section) did reside in the study area and provided cost information (Appendix 8.2, Table 77). Since these same respondents spent most of their hunting days in the study area (Appendix 8.2, Table 81), this cost information is taken to be representative of all study area residents who hunted in the area during the 1975-76 season. A study area hunter spent, on average, $304.92 for the 1975-76 season. Total variable costs per person per season accounted for $163.17 and included the following: travel costs, $90.84; food, $38.33; beverages, $15.00; guides, $2.50; and ammunition, $16.50. Capital purchases per person per season accounted for $128.54 of the average total hunting costs. License fees for varying combinations of Alberta hunting licenses averaged $13.21, bringing total hunting costs to $304.92 per person per season. Based on the 1,151 study area resident hunters, total hunting costs (expenditures) for the 1975-76 season amounted to $350,963, or 0.86 percent, of province-wide hunting costs.

The benefits, over and above hunting costs, to those study area residents who hunted in the area during the 1975-76 season are extramarket benefits. Of all study area resident hunters, the 85.8 percent who hunted big game received, on average, $15.58 per person per day. Among big game hunters, 97.5 percent hunted moose and received benefits of $14.48 per person per day (Appendix 8.3, Table 102), 6.6 percent hunted white-tailed deer and received benefits of $17.75 per person per day (Appendix 8.3, Table 103), and 1.7 percent hunted mule deer and received benefits of $17.33 per person per day (Appendix 8.3, Table 104). Among the study area resident hunters, the 34.5 percent who hunted upland bird game received, on average, $10.00 per person per day (Appendix 8.3, Table 105) and the 11.0 percent who hunted waterfowl received, on average, $9.71 per person per day (Appendix 8.3, Table 106).

AOSERP study area resident hunters for all hunting combined received an average of $17.89 per day or $105.19 per season in extramarket benefits.[1] Based on the 1,151 study area resident hunters, total extramarket benefits for the season amount to $121,074 annually, or 0.50 percent, of province-wide benefits.

The value of the wildlife hunting resource to study area resident hunters consists of a market component (the license fee) and an extramarket component (the extramarket benefits). On this basis, the value of AOSERP study area wildlife resources to active area resident hunters is $118.40 per person annually. Based on the estimated 1,151 study area resident hunters the total area wildlife resource value to study area resident hunters is $136,278, or 0.53 percent, of the provincial hunter wildlife resource value. This annual value does not include the recreational or option value of the study area wildlife resource to resident hunters residing outside of the area nor to other Canadian or non-Canadian hunters. Furthermore, it does not include the recreational or option value of the study area wildlife resource to non-hunters nor its value from commercial and other non-recreational uses.

---

[1]Average number of days of 5.88 (Appendix 8.3, Table 107) times $17.89.

5.4 HUNTING ACTIVITY

AOSERP study area resident hunters spent, on average, 5.88 days hunting (Appendix 8.3, Table 107). This involved an average of 2.40 trips with a duration of 2.45 days per trip.[1] On the basis of the estimated 1,151 study area resident hunters during the 1975-76 season, total hunter recreation days amounted to 6,768 days (0.93 percent of the provincial total) and the total number of hunting trips totalled 2,762 (0.60 percent of the provincial total). The average party size per trip was 2.43 persons.

Each study area resident hunter travelled an average of 298.41 km (185.31 miles) or 124.33 km (77.21 miles) per trip (Appendix 8.3, Table 107). The average distance from residence to hunting site was 62.17 km (38.61 miles), considerably less than the provincial average of 103.51 km (64.28 miles). In terms of total distance travelled for all active study area resident hunters during the 1975-76 season, the combined distance was 344,593 km (213,292 miles), or 0.36 percent of the provincial total.

5.4.1 Big Game Hunting Activity

The total number of big game animals taken averaged 18 per 100 study area resident big game hunters (Appendix 8.3, Table 108). Each hunter spent an average of 4.99 days on 2.07 trips for 2.41 days per trip. The average party size was 2.45 persons per trip and the total distance travelled averaged 278.26 km (172.80 miles) for an average of 134.5 km (83.5 miles) per trip per person (Appendix 8.3, Table 110).

The combined total number of big game animals taken, based on the inferred 988 study area resident big game hunters[2] active during the 1975-76 season in the study area, amounted to

---

[1]Mode, median, standard deviation, and range for all three averages, as well as party size and distance travelled, are given in Appendix 8.3, Table 107.

[2]85.8 percent of the 1,151 active study area resident hunters.

The benefits, over and above hunting costs, to those study area residents who hunted in the area during the 1975-76 season are extramarket benefits. Of all study area resident hunters, the 85.8 percent who hunted big game received, on average, $15.58 per person per day. Among big game hunters, 97.5 percent hunted moose and received benefits of $14.48 per person per day (Appendix 8.3, Table 102), 6.6 percent hunted white-tailed deer and received benefits of $17.75 per person per day (Appendix 8.3, Table 103), and 1.7 percent hunted mule deer and received benefits of $17.33 per person per day (Appendix 8.3, Table 104). Among the study area resident hunters, the 34.5 percent who hunted upland bird game received, on average, $10.00 per person per day (Appendix 8.3, Table 105) and the 11.0 percent who hunted waterfowl received, on average, $9.71 per person per day (Appendix 8.3, Table 106).

AOSERP study area resident hunters for all hunting combined received an average of $17.89 per day or $105.19 per season in extramarket benefits.[1] Based on the 1,151 study area resident hunters, total extramarket benefits for the season amount to $121,074 annually, or 0.50 percent, of province-wide benefits.

The value of the wildlife hunting resource to study area resident hunters consists of a market component (the license fee) and an extramarket component (the extramarket benefits). On this basis, the value of AOSERP study area wildlife resources to active area resident hunters is $118.40 per person annually. Based on the estimated 1,151 study area resident hunters the total area wildlife resource value to study area resident hunters is $136,278, or 0.53 percent, of the provincial hunter wildlife resource value. This annual value does not include the recreational or option value of the study area wildlife resource to resident hunters residing outside of the area nor to other Canadian or non-Canadian hunters. Furthermore, it does not include the recreational or option value of the study area wildlife resource to non-hunters nor its value from commercial and other non-recreational uses.

---

[1]Average number of days of 5.88 (Appendix 8.3, Table 107) times $17.89.

5.4. HUNTING ACTIVITY

AOSERP study area resident hunters spent, on average, 5.88 days hunting (Appendix 8.3, Table 107). This involved an average of 2.40 trips with a duration of 2.45 days per trip.[1] On the basis of the estimated 1,151 study area resident hunters during the 1975-76 season, total hunter recreation days amounted to 6,768 days (0.93 percent of the provincial total) and the total number of hunting trips totalled 2,762 (0.60 percent of the provincial total). The average party size per trip was 2.43 persons.

Each study area resident hunter travelled an average of 298.41 km (185.31 miles) or 124.33 km (77.21 miles) per trip (Appendix 8.3, Table 107). The average distance from residence to hunting site was 62.17 km (38.61 miles), considerably less than the provincial average of 103.51 km (64.28 miles). In terms of total distance travelled for all active study area resident hunters during the 1975-76 season, the combined distance was 344,593 km (213,292 miles), or 0.36 percent of the provincial total.

5.4.1 Big Game Hunting Activity

The total number of big game animals taken averaged 18 per 100 study area resident big game hunters (Appendix 8.3, Table 108). Each hunter spent an average of 4.99 days on 2.07 trips for 2.41 days per trip. The average party size was 2.45 persons per trip and the total distance travelled averaged 278.26 km (172.80 miles) for an average of 134.5 km (83.5 miles) per trip per person (Appendix 8.3, Table 110).

The combined total number of big game animals taken, based on the inferred 988 study area resident big game hunters[2] active during the 1975-76 season in the study area, amounted to

---

[1]Mode, median, standard deviation, and range for all three averages, as well as party size and distance travelled, are given in Appendix 8.3, Table 107.

[2]85.8 percent of the 1,151 active study area resident hunters.

176 animals (0.79 percent of the provincial total). Of this total number of big game animals bagged, moose accounted for 79.1 percent; bear, 18.6 percent; and caribou, 2.3 percent (Appendix 8.3, Table 108). Although deer were sought by some of the sample respondents, none was bagged. In terms of AOSERP study area wide harvest by area residents, deer probably account for less than 2.5 percent of all game animals taken. The total number of trips taken for each species represents the number of times that species was sought during the 1975-76 season. Moose was by far the most sought after big game. Species sought, in descending order of preference, are as follows: moose, 83.85 percent; bear, 11.62 percent; deer, 3.81 percent (consisting of deer unspecified, 1.81 percent, white-tailed deer, 1.63 percent, and mule deer, 0.36 percent); and caribou, 0.36 percent.

The geographical distribution of big game hunting activities by study area resident hunters in the area is given by grid number (Figure 3) for 241 survey respondents in Appendix 8.3, Tables 110 and 113. The number of respondents represents 24.4 percent of the estimated 988 study area resident big game hunters active in the study area during 1975-76. The sample raising factor to convert "number of respondents" in Table 110 and "number taken by grid no." (for big game animals only, in Table 113) to population estimates is 4.10. The location of each grid number is given in Figure 3. An example, using grid location 10, located in Figure 3, illustrates the procedure. Table 110 indicates 113 study area respondents hunted big game in grid location 10. The estimated total number of study area resident big game hunters in the grid location during the 1975-76 season is 113 x 4.1 or 463 persons. Each of the 463 persons hunted big game an average of 2.79 days on 1.05 trips for an average of 2.65 days per trip. The average party size was 2.55 persons. Each of the 463 persons travelled a total of 124.0 km (77.0 miles) or 117.7 km (73.1 miles) per trip in connection with grid location 10 big game hunting activity and bagged an average of 0.08 animals. Table 113 further indicates that nine moose were taken. The estimated total for grid number 10

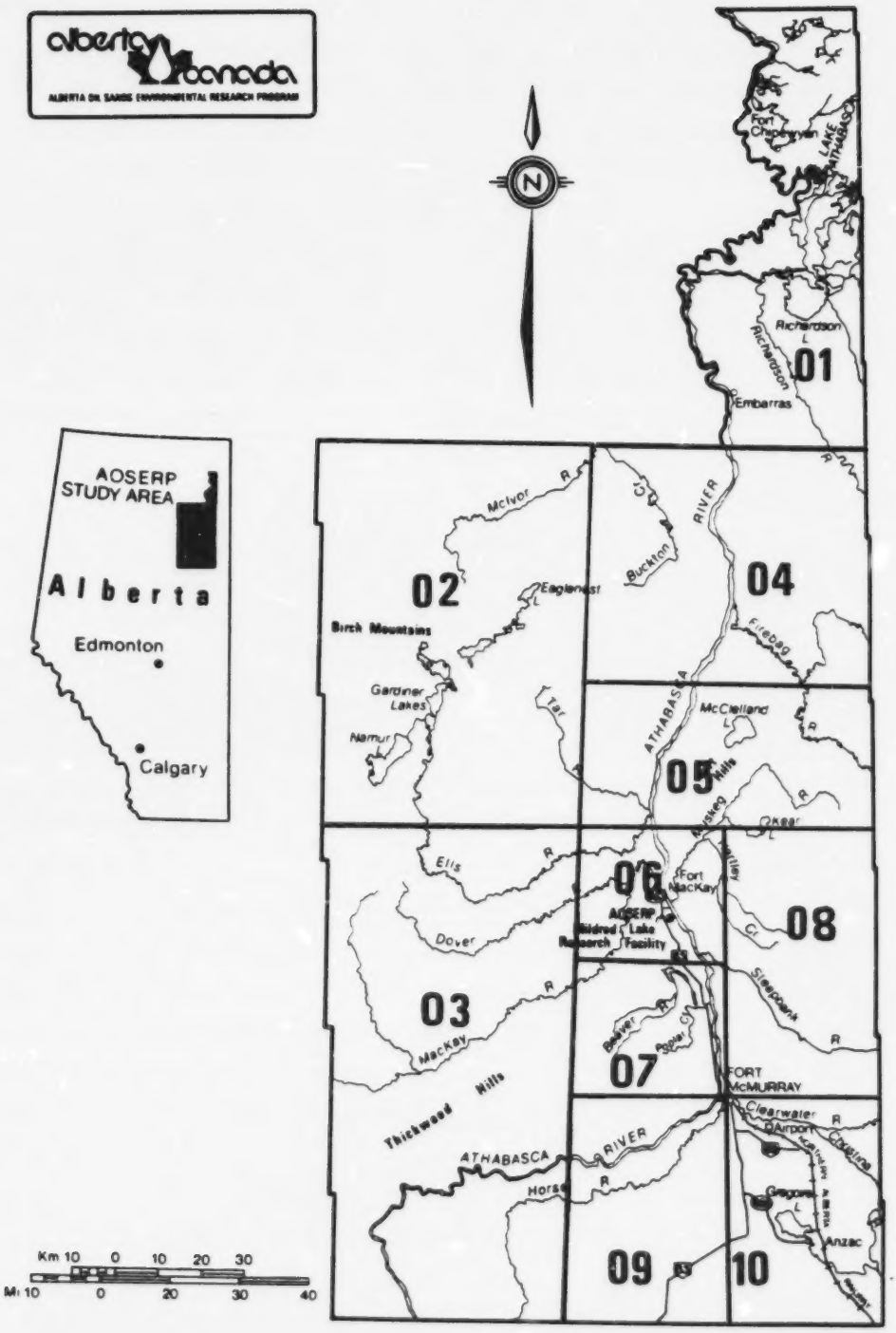


Figure 3. Map of AOSERP study area grids.

during the 1975-76 season is 9 x 4.10 or 37 moose. The larger the number of survey respondents and number of animals taken for a grid location, the more reliable the estimates of population totals. Consequently, greater caution should be used in interpreting estimates for grid locations in which the number of respondents is few and in which the number of animals taken is low (Appendix 8.3, Tables 110 and 113). The presence of 0's suggests that the number of big game species taken is probably less than four animals. The fact that the sample shows no deer taken in any of the grid locations suggests that deer harvest is very low, with probably less than four animals per grid location.

Each study area resident big game hunter bagged an average of 0.18 animals in an average of 1.7 grid locations during the 1975-76 season. The average take per person (hunter success rate) per grid location was 0.11 animals. The big game hunter success rates in the 10 grid locations ranged from 0.00 to 0.60 animals per person (Appendix 8.3, Table 110). The following five grid locations (Figure 3) were above average in hunter success rates: 1, 2, 3, 4, and 5. An average 168 study area resident big game hunters were active in a study area grid location in which 17.6 big game animals were taken during the 1975-76 season. The number of hunters ranged from 21 to 541 persons. Grid locations 9 and 10 were well above average in the number of active study area resident big game hunters. The others were below average (Appendix 8.3, Table 110). The following grid locations were above average in total number of big game animals taken: 3, 4, 9, and 10 (Appendix 8.3, Table 113).

5.4.2 Upland Bird Game Hunting Activity

The total number of upland birds taken averaged 7.74 per study area resident upland bird game hunter (Appendix 8.3, Table 109). Each hunter spent an average of 5.54 days on 2.01 trips for 2.76 days per trip. The average party size was 2.28 persons per trip and the total distance travelled averaged

157.3 km (97.7 miles) for an average of 78.3 km (48.6 miles) per trip per person (Appendix 8.3, Table 111).

The combined total number of upland birds taken, based on the inferred 397 study area resident upland bird game hunters[1] active during the 1975-76 season in the study area, amounted to 3,075 birds (1.24 percent of the provincial total). Of this total number of upland birds bagged, grouse accounted for 96.7 percent and ptarmigan 3.3 percent (Appendix 8.3, Table 109). Although pheasant were sought by one sample respondent, none was bagged. Study area wide pheasant harvest by area residents is probably negligible. The total number of trips taken for each species represents the number of times that species was sought during the 1975-76 season. Grouse was by far the most sought after upland bird (88.1 percent), followed by ptarmigan at 10.9 percent, and pheasant, 1.0 percent.

The geographical distribution of upland bird game hunting activities by study area resident hunters in the AOSERP study area is given by grid number (Figure 3) for 90 survey respondents in Appendix 8.3, Tables 111 and 113. The number of respondents represent 22.7 percent of the estimated 397 study area resident upland bird game hunters active in the area during 1975-76. The sample raising factor to convert "number of respondents" in Table 111 and "number taken by grid no." (for upland bird game only, in Table 113) to population estimates is 4.41. The location of each grid number is given in Figure 3. The procedure for arriving at population estimates for each grid location is the same as that illustrated previously for big game. Again, caution should be used in interpreting estimates for gird locations in which the number of respondents and number of birds taken are low.

Each study area resident upland bird game hunter, during the 1975-76 season, bagged an average of 7.74 birds in an average

---

[1]34.5 percent of the 1,151 active study area resident hunters.

of 1.4 grid locations. The average take per person (hunter success rate) per grid location was 5.53 birds. The upland bird game hunter success rates among the nine grid locations represented (excludes grid number 2 where no sample respondents hunted upland birds) ranged from 2.00 to 9.50 birds per person (Appendix 8.3, Table 111). The following four grid locations (Figure 3) were above average in hunter success rates: 1, 5, 8, and 9. An average 56 study area resident upland bird game hunters were active in a study area grid location in which 308 upland brids were taken during the 1975-76 season. The number of hunters ranged from 0 to 181 persons. The following three of the ten grid locations were above average in number of active study area resident upland bird game hunters: 7, 9, and 10 (Appendix 8.3, Table 111). The following grid locations were above average in the total number of upland birds taken: 7, 9, and 10 (Appendix 8.3, Table 113).

5.4.3 Migratory Bird Game Hunting Activity

The total number of waterfowl taken averaged 8.32 per study area resident waterfowl hunter (Appendix 8.3, Table 109). Each hunter spent an average of 2.84 days on 1.28 trips for 2.22 days per trip. The average party size was 2.45 persons per trip and the total distance travelled averaged 136.1 km (84.2 miles) for an average of 106.0 km (65.8 miles) per trip per person (Appendix 8.3, Table 112).

The combined total number of waterfowl taken, based on the inferred 127 study area resident waterfowl hunters[1] active during the 1975-76 season in the area, amounted to 1,057 waterfowl (0.10 percent of the provincial total). Of this total number of waterfowl bagged, ducks accounted for 78.0 percent and geese, 22.0 percent (Appendix 8.3, Table 109). The total number

[1] 11.0 percent of the 1,151 active study area resident hunters.

of trips taken for each species represent the number of times that species was sought during the 1975-76 season. The proportions are ducks, 79.2 percent and geese 20.8 percent.

The geographical distribution of waterfowl hunting activities by study area resident hunters in the area is given by grid number (Figure 3) for 25 survey respondents in Appendix 8.3, Tables 112 and 113. The number of respondents represent 19.7 percent of the estimated 127 study area resident waterfowl hunters active in the area during 1975-76. The sample raising factor to convert "number of respondents" in Table 112 and "number taken by grid no." (for migratory bird game only, in Table 113) to population estimates is 5.08. The location of each grid number is given in Figure 3. The procedure for arriving at population estimates for each grid location is the same as that illustrated previously for big game. Again, caution should be exercised in interpreting estimates for grid locations in which the number of respondents and number of waterfowl taken is low or, in some instances, zero. In cases where 0's appear for number of respondents in certain grid locations, the population of hunters in these grid locations is probably less than five. The waterfowl take is also negligible.

Each study area resident waterfowl hunter, during the 1975-76 season, bagged an average of 8.32 waterfowl in an average 1.04 grid number locations. The average take per person (hunter success rate) per grid location is 8.00 waterfowl. The waterfowl hunter success rates among the five grid locations represented (excludes grid numbers 2, 3, 5, 6, and 8 where no sample respondents hunted waterfowl) ranged from 3.33 to 31.25 waterfowl per person (Appendix 8.3, Table 112). Grid location number 1 was well above average and the others were below average. An average 13 study area resident waterfowl hunters were active in a study area grid location in which 106 waterfowl were taken during the 1975-76 season. The number of hunters ranged from 0 to 56 persons with grid numbers 1, 4, 9, and 10 above average

in the number of active study area resident waterfowl hunters (Appendix 8.3, Table 112). Grid locations 1 and 10 were above average in the total number of waterfowl taken by study area waterfowl hunters (Appendix 8.3, Table 113).

5.4.4 Summary

There were an estimated 1,151 AOSERP study area resident hunters active in the study area during the 1975-76 season (1.12 percent of the provincial total). Among this total, 988 (1.65 percent of the provincial total) were active in big game hunting, 397 (1.21 percent of the provincial total) were active in upland bird game hunting, and 127 (0.21 percent of the provincial total) were active in waterfowl hunting.

Each study area resident hunter spent an average of 5.88 days hunting in the area for a total of 6,768 days (0.93 percent of the provincial total). The number of trips averaged 2.40 for a total of 2,762 trips (0.60 percent of the provincial total). Those hunting big game spent an average of 4.99 days per person on 2.07 trips per person. Those hunting upland bird game spent an average of 5.54 days per person on 2.01 trips per person, and those hunting waterfowl spent an average of 2.84 days per person on 1.28 trips per person.[1]

The average party size for all hunting trips was 2.43 persons per trip. Corresponding averages for big game, upland bird game, and waterfowl hunting trips were 2.45 persons per trip, 2.28 persons per trip, and 2.45 persons per trip, respectively.

Each study area resident hunter in the study area travelled an average of 298.41 km (185.31 miles) for a total of 343,465 km (213,292 miles), or 0.36 percent of the provincial total for all hunters during the 1975-76 season. Big game hunters travelled an average of 278.3 km (172.8 miles) per person per season. Upland

---

[1]The number of days and trips for big game, upland bird game, and waterfowl taken together is greater than the totals for all hunting combined since many hunters sought combinations of big game, upland bird game and/or waterfowl on particular trips.

bird game hunters travelled 157.3 km (97.7 miles) per person per season and waterfowl hunters travelled 135.6 km (84.2 miles) per person per season.

Each study area resident big game hunter visited, on average, 1.7 grid locations and bagged an average of 0.18 big game animals during the 1975-76 season. The total number of big game animals bagged in the study area by all area resident big game hunters totalled an estimated 176 animals (0.79 percent of the provincial total), of which 79.1 percent were moose, 18.6 percent bear, and 2.3 percent caribou. In terms of numbers of times sought the species preferences were as follows: moose, 83.9 percent; bear, 11.6 percent; deer, 3.8 percent; and caribou, 0.4 percent.

Each study area resident upland bird game hunter visited, on average, 1.4 grid locations and bagged an average of 7.74 birds during the 1975-76 season. The total number of upland birds bagged in the study area by all area resident upland bird game hunters totalled an estimated 3,075 birds (1.24 percent of the provincial total), of which 96.7 percent were grouse and 3.3 percent were ptarmigan. In terms of numbers of times sought, the species preferences were as follows: grouse, 88.1 percent; ptarmigan, 10.9 percent; and pheasant, 1.0 percent.

Each study area resident waterfowl hunter visited, on average, 1.04 grid locations and bagged an average of 8.32 waterfowl during the 1975-76 season. The total number of waterfowl bagged in the area by AOSERP study area resident waterfowl hunters totalled an estimated 1,057 waterfowl (0.10 percent of the provincial total), of which 78.0 percent were ducks and 22.0 percent were geese. In terms of numbers of times sought, the species preferences were as follows: ducks, 79.2 percent and geese, 20.8 percent.

5.5 COMMENTS

Each resident study area questionnaire recipient was given an opportunity to make comments which would help in an evaluation of the area's hunting activity. Among the 281 respondents who hunted in the study area during the 1975-76 season, 61 gave no comment, 81 provided one comment, and 39 provided two comments, for a total of 159 comments (Appendix 8.3, Table 114). Of the total number of comments, 73 focused on improvements which could enhance the quality of hunting experiences. Increased accessibility was by far the most frequently mentioned desired improvement, followed by reduced over crowding, more enforcement, and later hunting seasons. The other reasons given for improvements are summarized in Table 114.

Of the remaining comments, 11 indicated that hunting is deteriorating. Another 10 comments depicted hunting as a good recreational activity, followed by seven comments which indicated hunting as good, and six comments which indicated hunting is poor. Hunting as priceless was mentioned in four comments and hunting becoming a sport for the rich only was mentioned in three comments. Various other comments made up the balance of the 159 comments and are presented in Appendix 8.3, Table 114.

5.6 SUMMARY

Of the 1,630 study area resident hunting license holders during the 1975-76 season, the average age was 32.74 years, the average family income was $19,411, and the average family size was 3.78 persons. Each person held an average of three different kinds of Alberta hunting licenses and hunted primarily for meat and secondarily for enjoyment. The 1,151 study area resident license holders, of the 1,630 total, who engaged in hunting activities in the area incurred average hunting costs of $304.92 for a study area total of $350,963 (0.86 percent of the provincial total) for the season. Extramarket benefits over and above these costs amounted to $105.19 per person, for a study area season total

of $121,074 (0.50 percent of the provincial total). These benefits, along with license fees, represent the value of AOSERP study area wildlife resources for actual recreational hunting activity by study area resident hunters. This value averaged $118.40 per participant for an area total of $136,278 (0.53 percent of the provincial total) for the season.

Among the 1,151 active study area resident hunters (1.12 percent of the provincial total) who hunted in the area during the 1975-76 season, the average number of recreational hunting days was 5.88 per person, the average number of trips was 2.40 per person, the average number of days per trip per person was 2.45, and the average party size per trip was 2.43 persons. The total number of recreation hunting days for study area resident hunters in the area during the 1975-76 season was 6,768 (0.93 percent of the provincial total). Each study area resident hunter, on average, travelled 298.4 km (185.31 miles) in the study area during the season for an average of 124.33 km (77.21 miles) per trip. The study area total was 344,019 km (213,292 miles) (0.36 percent of the provincial total).

The study area resident big game hunter success rate averaged 0.18 animals per big game hunter with the total number of animals taken in the area by area residents during 1975-76 amounting to 176 big game animals (0.79 percent of the provincial total). AOSERP study area resident upland bird game hunter success rate averaged 7.74 birds per upland bird game hunter with the total number of upland birds taken in the area by area residents during 1975-76 amounting to 3,075 upland birds (1.24 percent of the provincial total). The study area resident waterfowl hunter success rate averaged 8.32 waterfowl per waterfowl hunter with the total number of waterfowl taken in the area by area residents during 1975-76 amounting to 1,057 waterfowl (0.10 percent of the provincial total).

6. SUMMARY AND CONCLUSIONS

Two mail questionnaires were designed and utilized to obtain the information required to meet the objectives of this study (Appendix 8.1). One questionnaire was for a randomly cited systematic sample of 1,994 recipients from the 124,814 Alberta resident hunting license holders during the 1975-76 season. The other questionnaire was for all 1,630 AOSERP study area resident hunting license holders during the same season. The initial mailing to both groups of recipients was followed by a second mailing to nonrespondents of the initial mailing. The combined response of first and second mailings to the provincial survey was 710 (37.0 percent) of which 680 returns were usable. The combined response to the AOSERP study area survey was 421 (28.2 percent) of which 398 were usable (Table 4). A comparison between first and second mailings for selected variables from both survey results was made to see if there was evidence of nonresponse bias. The comparison for the provincial survey was indeterminate, neither confirming nor rejecting evidence of nonresponse bias. There was no evidence of nonresponse bias in the AOSERP study area. Detailed results of the provincial hunting survey are contained in Appendix 8.2 and detailed results of the AOSERP study area hunting survey are contained in Appendix 8.3.

6.1 SOCIOECONOMIC CHARACTERISTICS

Of the 124,814 Alberta hunting license holders during the 1975-76 hunting season, 38 percent resided in Edmonton and Calgary; the remainder were widely dispersed throughout the Province. The 1,630 study area residents accounted for 1.31 percent of all Alberta resident license holders. Approximately 92 percent of study area license holders resided in Fort McMurray. The average age province-wide was 34.19 years, whereas the generally slightly younger study area license holders averaged 32.74 years of age (Table 4). The proportion of males among provincial license holders was 97.7 percent and among study area license

Table 4. Socioeconomic characteristics and hunting experience of Provincial and AOSERP study area hunting license holders, 1975-76 season.

Item	Alberta Residents	AOSERP Study Area Residents
No. of Hunting License Holders (persons)	124,814	1,630
No. of Survey Respondents (persons)	680	398
Average age (years)	34.19	32.74
Proportion of Male Respondents (percent)	97.70	95.10
Average Family Size (persons)	3.52	3.78
Average Family Income (dollars)	$ 18,349.00	$ 19,411.00
Average Family Education (years)	12.00	12.00
Average No. of Different Alberta Hunting Licenses Held	2.42	3.00
Hunted Prior to the 1975-76 Season (percent)	94.10	89.10
Hunted in Alberta prior to the 1975-76 Season (percent)	87.40	82.90
Hunted in Study Area Prior to the 1975-76 Season (percent)	5.00	63.80
Hunted in Alberta During the 1975-76 Season (percent)	82.20	91.50
Hunted in Study Area During the 1975-76 Season (percent)	2.20	70.60
Estimated No. of Resident Hunters During the 1975-76 Season (persons)	102,600	1,151

holders, 95.1 percent. Study area resident license holders tended to be from slightly larger families than those in the Province as a whole: 3.78 persons per family compared to 3.52 persons per family (Table 4).

Among 17 occupation categories for provincial license holders, tradesmen accounted for 16.8 percent, followed by professional and technical occupations, 12.9 percent, and labourers, 10.8 percent; other categories represented less than 10 percent each. Among study area resident license holders, tradesmen accounted for 23.1 percent, followed by managerial occupations, 13.9 percent, operative occupations, 13.6 percent, professional and technical occupations, 12.3 percent, and miscellaneous occupations, 13.1 percent; other categories represented less than 7 percent each.

Annual family income was generally higher for study area resident license holders than for the provincial group as a whole. Nearly one half (46 percent) of the provincial license holders had annual family incomes between $10,000 and $20,000 with an average of $18,349 per family. Approximately one half of the study area resident license holders had annual family incomes between $15,000 and $25,000 with an average of $19,411 per family (Table 4).

The distribution of years of formal education for provincial resident license holders and AOSERP study area license holders is slightly dissimilar even though both groups had an average of 12 years of formal education (Table 4). The provincial distribution indicates that 24.2 percent had high school matriculation, 18.2 percent had at least one year of university, and 18.4 percent completed at least one year of formal technical training, bringing the total to 60.8 percent. Approximately 98 percent had at least seven years of formal education. The study area distribution, however, indicates that 21.8 percent had high school matriculation, 12.0 percent had at least one year of university, and 19.7 percent completed at least one year of formal technical

training, bringing the total to 53.5 percent. Approximately 94 percent had at least seven years of formal education.

6.2 HUNTING EXPERIENCE

Among the 124,814 provincial resident hunting license holders, 94.1 percent had hunting experiences prior to the 1975-76 season. Of the 1,630 study area resident hunting license holders, 89.1 percent had prior hunting experiences (Table 4). Those provincial license holders who hunted in Alberta prior to the 1975-76 season accounted for 87.4 percent of all provincial license holders, whereas those study area license holders who hunted in Alberta prior to the 1975-76 season accounted for only 82.9 percent of all study area license holders. Only 5.0 percent of provincial license holders had ever hunted in the study area prior to 1975-76. Among the study area license holders, only 63.8 percent had hunted in the area prior to the 1975-76 hunting season (Table 4).

Provincial resident hunting license holders held an average of 2.42 different kinds of Alberta hunting licenses and hunted primarily for enjoyment and secondarily for meat. AOSERP study area resident hunting license holders held an average of 3.0 different Alberta hunting licenses and hunted primarily for meat and secondarily for enjoyment.

During the 1975-76 hunting season, 82.2 percent of provincial license holders engaged in hunting in Alberta; that is, there were approximately 102,600 resident hunters (by inference) who were active during the season. Of these hunters, an estimated 2,203 persons, or 2.2 percent of provincial license holders, hunted in the study area (Tables 4 and 5).

Among study area resident license holders, 91.5 percent hunted in Alberta during the 1975-76 season. Most of these (70.6 percent) were active in the study area. The estimated number of study area resident hunters active in the area is 1,151 persons (Tables 4 and 5).

Table 5. Ratings for hunting activities of provincial and AOSERP study area resident hunters, 1975-76 season.

Item		Alberta Residents	AOSERP Study Area Residents[a]
No. of Resident Hunters (persons)		102,600	1,151
No. of Hunter Survey Respondents (persons)		559	281
No. of Hunters Active in the Study Area (persons)		2,203	1,151
Proportion of Hunter Hunting Big Game (percent)		58.3	85.8
Proportion of Hunters Hunting Upland Bird Game (percent)		32.0	34.5
Proportion of Hunters Hunting Waterfowl (percent)		60.3	11.0
Rating of Big Game Hunting Experiences (percent):	- very good	14.1	5.7
	- good	23.8	22.3
	- fair	28.5	25.3
	- poor	24.8	31.4
	- very poor	8.8	15.3
Rating of Upland Bird Game Hunting Experiences (percent):	- very good	8.1	15.9
	- good	23.3	35.2
	- fair	34.9	34.1
	- poor	23.3	8.0
	- very poor	10.4	6.8
Rating of Waterfowl Hunting Experiences (percent):	- very good	19.5	13.3
	- good	38.4	23.3
	- fair	27.7	26.8
	- poor	9.8	23.3
	- very poor	4.6	13.3

continued ...

Table 5. Concluded.

Item		Alberta Resident	AOSERP Study Area Residents[a]
Rating of Study Area Big Game Hunting Compared to Provincial Hunting (percent)[b]	- better than	40.0	
	- as good as	40.0	
	- worse than	20.0	
Rating of Study Area Upland Bird Game Hunting Compared to Provincial Hunting (percent):	- better than	20.0	
	- as good as	60.0	
	- worse than	20.0	
Rating of Study Area Waterfowl Hunting Compared to Provincial Hunting (percent)[b]:	- better than	0.0	
	- as good as	50.0	
	- worse than	50.0	

[a]Includes only those residents who hunted in the study area during the 1975-76 season.

[b]An estimated 2,203 Alberta resident hunters, of the total 102,600 hunters, hunted in the study area during the 1975-76 season. The corresponding sample size was 12 out of 559 respondents.

The balance of this summary focuses only on active resident hunters during the 1975-76 season. These include 124,814 provincial resident hunters who were active throughout the Province, 2,203 provincial resident hunters who were active in the study area (2.2 percent of the provincial total), and 1,151 study area resident hunters who were active in the area (1.12 percent of the provincial total) (Table 5).

Among provincial resident hunters, 58.3 percent hunted big game throughout the Province and tended to rate their experiences better than the 85.8 percent of study area resident hunters who hunted big game in the area. The provincial big game hunting ratings were as follows: very good, 14.1 percent; good, 23.8 percent; fair, 28.5 percent; poor, 24.8 percent; and very poor, 8.8 percent. The study area big game hunting ratings were as follows: very good, 5.7 percent; good, 22.3 percent; fair, 25.3 percent; poor, 31.4 percent; and very poor, 15.3 percent (Table 5).

Of the provincial resident hunters, 32 percent hunted upland bird game throughout the Province and tended to rate their experiences worse than 34.5 percent of study area resident hunters who hunted upland bird game in the study area. The provincial upland bird game hunting ratings were as follows: very good, 8.1 percent; good, 23.3 percent; fair, 34.9 percent; poor, 23.3 percent; and very poor, 10.4 percent. The study area upland bird game hunting ratings were as follows: very good, 15.9 percent; good, 35.2 percent; fair, 34.1 percent; poor, 8.0 percent; and very poor, 6.8 percent (Table 5).

Among the provincial resident hunters, 60.3 percent hunted waterfowl throughout the Province and tended to rate their experiences better than 11 percent of study area resident hunters who hunted waterfowl in the area. The provincial waterfowl hunting ratings were as follows: very good, 19.5 percent; good, 38.4 percent; fair, 27.7 percent; poor, 9.8 percent; and very poor, 4.6 percent. The study area waterfowl hunting ratings were as follows: very good, 13.3 percent; good, 23.3 percent; fair, 26.8 percent; poor, 23.3 percent; and very poor, 13.3 percent (Table 5).

Provincial resident hunters who hunted in the study area during the 1975-76 season rated their study area hunting experiences in comparison with their provincial experiences. The big game hunting ratings were as follows: study area hunting better than provincial hunting, 40 percent; study area hunting as good as provincial hunting, 40 percent; and study area hunting worse than provincial hunting, 20 percent. The upland bird game hunting ratings were as follows: study area hunting better than provincial hunting, 20 percent; study area hunting as good as provincial hunting, 60 percent; and study area hunting worse than provincial hunting, 20 percent. The waterfowl hunting ratings were as follows: study area hunting as good as provincial hunting, 50 percent; and study area hunting worse than provincial hunting, 50 percent (Table 5).

6.3 HUNTING ACTIVITY COSTS AND BENEFITS

Annual total hunting costs included hunting trip costs (which are made up of travel, lodgings, food, beverage, rental, guiding, ammunition, hunting services, and miscellaneous costs), hunting license costs, and capital purchase costs allocated to hunting activities. The costs to provincial resident hunters averaged $397.29 per person. Based on the 102,600 hunters in the Province, the provincial total of annual hunting costs for the 1975-76 season was $40,761,955. Annual total hunting costs for study area resident hunters averaged $304.92 per person for a total of $350,963 (0.86 percent of the provincial total) (Table 6). The lower cost per person for study area resident hunters is primarily due to the fact that they spend less time hunting and travel much shorter distances (Table 7).

Extramarket benefits over and above hunting costs are a partial measure of the value of hunting to hunters. The annual extramarket benefits to resident hunters averaged $237.02 per person (consisting of $200.85 for big game, $157.63 for upland

Table 6. Costs and benefits for hunting activities of provincial and AOSERP study area resident hunters, 1975-76 season.

Item	Alberta Residents	AOSERP Study Area Residents[a]
No. of Resident Hunters (persons)	102,600	1,151
No. of Hunter Survey Respondents (persons)	559	281
Annual Total Hunting Costs per Person (dollars)	$ 397.29	$ 304.92
Annual Extramarket Benefits per Person (dollars)	$ 237.02	$ 105.19
Annual Value per Person Attributable to Wildlife Resource (dollars)	$ 250.23	$ 118.40
Annual Total Hunter Costs (dollars)	$40,761,955.00	$350,963.00
Annual Total Hunter Extramarket Benefits (dollars)	$24,318,250.00	$121,074.00
Annual Total Hunter Value of Wildlife Resources (dollars)	$25,673,600.00	$136,278.00

[a]Includes only those AOSERP study area residents who hunted in the study area during the 1975-76 season.

Table 7. Hunting activities of provincial and AOSERP study area resident hunters, 1975-76 season.

Item	Hunting Activities of Alberta Resident Hunters in Alberta	Hunting Activities of Alberta Resident Hunters in the Study Area	Hunting Activities of Study Area Resident Hunters in the Study Area
No. of Resident Hunters (persons)	102,600	2,203	1,151
Average No. of Hunter Days per Person (days)	7.13	4.70[a]	5.88
Average No. of Trips per Person (trips)	4.50	2.10	2.40
Average No. of Hunter Days per Trip per Person (days)	1.58	2.24	2.45
Average Party Size per Trip (persons)	2.67	2.80	2.43
Average Distance Travelled per Person km(miles)	931.53(578.48)	593.36(368.40)	298.40(185.31)
Average Distance Travelled per Trip per Person km (miles)	207.00(128.55)	282.44(175.40)	124.33(77.21)
Average Distance from Residence to Site per Person km (miles)	103.51(64.28)	141.22(87.70)	62.17(38.61)
Total No. of Hunter Days (days)	731,538	10,354[a]	6,768
Total No. of Trips (trips)	461,700	4,626	2,762
Total Distance Travelled km (miles)	95,574,956(59,352,048)	1,306,900(811,585)	343,465(213,292)

[a]This figure represents 48 percent of total hunting time spent in the Province by those Alberta resident hunters who hunted in the study area among other Alberta locations.

bird game, and $115.13 for waterfowl)[1] for a provincial total of $24,318,250. Annual extramarket benefits to study area resident hunters averaged $105.19 per person (consisting of $77.74 for big game, $55.40 for upland bird game, and $27.58 for waterfowl) for a total of $121,074 (0.50 percent of the provincial total) (Table 6). The lower annual average for study area resident hunters is in part accounted for by the fact that they spent less time hunting (Table 7). However, even with this adjustment, study area resident hunters are below the provincial average: $17.89 in extramarket benefits per day (consisting of $15.58 for big game, $10.00 for upland bird game, and $9.71 for waterfowl) compared to the provincial average of $33.24 per day (consisting of $31.58 for big game, $20.85 for upland bird game, and $21.60 for waterfowl). The fact that study area resident hunter extramarket benefits per day from hunting in the area are about one half of those for provincial hunters from hunting province-wide is consistent with big game and waterfowl hunting experience ratings. However, these resident hunters rated upland bird game hunting better than provincial hunters even though extramarket benefits per day were about one half of those for provincial hunters.

The value of wildlife resources to hunters consists of a market component (the license fees) and an extramarket component (the extramarket benefits derived from hunting). On this basis, the annual value of Alberta's wildlife resources to resident hunters is $250.23 per person, for a provincial total of $25,673,600. The annual value of study area wildlife resources to AOSERP

---

[1]The total of extramarket benefits per person for big game, upland bird game, and waterfowl hunting is greater than for all hunting combined. However, hunters spent only part of their total hunting time in each of the three groups and in many instances sought combinations of big game, upland bird game, and/or waterfowl on particular hunting trips.

study area resident hunters is $118.40 per person for a total of $136,278 (0.53 percent of the provincial total). The provincial annual value of Alberta's wildlife resources does not include the recreational value of the wildlife resources to those residents who do not hunt nor the recreational value to other Canadians and non-Canadians. Furthermore, it does not include the value of the wildlife resources from commercial and other nonrecreational uses.

6.4 HUNTING ACTIVITY

The 102,600 Alberta resident hunters spent a total of 7.13 days per person or 731,538 days hunting in Alberta during the 1975-76 season (Table 7). The number of trips averaged 4.50 per person for a total of 461,700 trips, bringing the number of days per trip to 1.58. The average hunting party size was 2.67. Among the 102,600 Alberta resident hunters, 2,203 hunted in the study area during the 1975-76 season which accounted for 48 percent of their time spent hunting. The number of hunting days spent in the area was 4.7 days per person, or a total of 10,354 days (1.42 percent of the provincial total). The associated number of trips was 2.1 per person for a total of 4,626 trips (1.0 percent of the provincial total) bringing the average number of days per trip to 2.24. The average hunting party size was 2.8 persons (Table 7). The 1,151 study area resident hunters hunted a total of 5.88 days per person in the area during the 1975-76 season for a total of 6,768 days (0.93 percent of the provincial total). The associated number of trips was 2.4 per person for a total of 2,762 trips (0.60 percent of the provincial total) bringing the number of days per trip to 2.45. The average hunting party size was 2.43 persons (Table 7).

The 102,600 Alberta resident hunters travelled a total of 931.53 km (578.48 miles) person, or 95,574,956 km (59,352,048 miles) during the 1975-76 season, on their hunting trips. The average distance per trip was 207.00 km (128.55 miles) and the average distance from residence to hunting site was 103.51 km (64.28 miles)

(Table 7). The 2,203 Alberta resident hunters who hunted in the study area an average of 48 percent of the time during the 1975-76 season, travelled a total of 593.36 km (368.4 miles) per person or 1,306,900 km (811,585 miles), or 1.37 percent of the provincial total, in connection with study area hunting trips. The average distance travelled per trip was 282.44 km (175.4 miles) and the average distance from residence to study area hunting site was 141.22 km (87.7 miles) (Table 7). The 1,151 study area resident hunters travelled a total of 298.40 km (185.31 miles) per person during the 1975-76 season or 343,465 km (213,292 miles) (0.36 percent of the provincial total) in connection with study area hunting trips. The average distance travelled per trip was 124.33 km (77.21 miles) and the average distance from residence to a study area hunting site was 62.17 km (38.61 miles) (Table 8). The results presented here indicate that study area resident hunters tend to spend less time, take fewer trips, and travel much shorter distances than Alberta hunters generally.

6.4.1 Big Game Hunting Activity

Among the 102,600 provincial resident hunters during the 1975-76 season, 59,816 hunters hunted big game during an average of 6.36 days per person. The big game harvest success rate was 0.37 animals per person, for a total provincial take of 22,382 big game animals (Table 8). Of the total big game harvest, deer accounted for 55.17 percent; moose, 23.28 percent; elk, 11.21 percent; antelope, 7.76 percent; and bear, 2.59 percent. Of the 2,203 provincial resident hunters who hunted in the study area during the 1975-76 season, 1,542 hunted big game in the study area during an average of 4.57 days per person. The big game harvest success rate was 0.14 animals per person, for a total take of 216 big game animals (0.97 percent of the provincial total) which consisted of virtually all moose (Table 8). Among the 1,151 study area resident hunters during the 1975-76 season, 988 hunted big game in the area during an average of 4.99 days per person. The

Table 8. Game harvest by provincial and AOSERP study area resident hunters, 1975-76 season.

Item	Hunting Activities of Alberta Resident Hunters in Alberta	Hunting Activities of Alberta Resident Hunters in the Study Area	Hunting Activities of Study Area Resident Hunters in the Study Area
Big Game:			
Number of Resident Hunters (persons)	59,816	1,542	988
Average No. of Hunter Days per Person (days)	6.36	4.57	4.99
Average No. of Big Game Animals Taken per Person (animals)	0.37	0.14	0.18
Total No. of Big Game Animals Taken (animals)	22,382	216	176
Upland Bird Game:			
Number of Resident Hunters (persons)	32,832	1,102	397
Average No. of Hunter Days per Person (days)	4.13	3.40	5.54
Average No. of Upland Birds Taken per Person (birds)	7.56	5.20	7.74
Total No. of Upland Birds Taken (birds)	248,210	5,730	3,075
Migratory Bird Game:			
Number of Resident Hunters (persons)	61,868	220	127
Average No. of Hunter Days per Person (days)	5.33	1.00	2.84
Average No. of Waterfowl Taken per Person (waterfowl)	17.74	8.00	8.32
Total No. of Waterfowl Taken (waterfowl)	1,097,538	1,760	1,057

big game harvest success rate was 0.18 animals per person for a total take of 176 big game animals (0.79 percent of the provincial total) (Table 8). Of the total big game harvest, moose accounted for 79.1 percent; bear, 18.6 percent; and caribou, 2.3 percent. The results presented here indicate that study area resident big game hunters have a lower success rate than provincial big game hunters. There are also differences in the proportion of different species taken, primarily due to the fact that availability of different species in the study area differs from the species available province-wide.

Big game hunter preferences for different species, measured in terms of the number of times each species was sought, is in part also dependent on species availability, but nevertheless differs from the profile of total harvest by species and differs between study area resident hunters and Alberta resident hunters. Alberta resident hunter preference for different species was as follows: deer, 48.91 percent; moose, 24.79 percent; elk, 20.35 percent; bear, 3.99 percent; antelope, 0.98 percent; bighorn sheep, 0.83 percent; and caribou, 0.15 percent. Study area resident hunter preference for different species was as follows: moose, 83.85 percent; bear, 11.62 percent; deer, 3.81 percent; and caribou, 0.36 percent.

The geographical distribution of big game hunting activities of Alberta resident hunters is quite varied among 97 Wildlife Management Units throughout the Province (Figure 2). Each hunter during the 1975-76 season bagged, on average, 0.37 animals in an average of 1.5 WMU locations. The average take per person per WMU was 0.25 animals. The big game hunter success rates among the WMU locations ranged from 0.00 to 1.50 animals per person. On average, 913 big game hunters were active in a WMU in which 228 big game animals were taken during the 1975-76 season. The number of hunters ranged from 193 to 4,824 persons. Those WMU locations which were above average in hunter success rates, total number of hunters, and total number of animals taken are as follows: 108, 110, 132, 158, 304, 522, and 524 (Figure 2).

Each study area resident hunter during the 1975-76 season hunted big game in an average of 1.7 study area grid locations (Figure 3). The average take per person per grid location was 0.11 animals. The big game hunter success rates among the 10 grid locations ranged from 0.00 to 0.60 animals per person. Grid locations 1, 2, 3, 4, and 5 were above average in hunter success rates. On average, 168 study area resident big game hunters were active in a grid location in which 17.6 big game animals were taken during the 1975-76 season. The number of hunters ranged from 21 to 541 persons. Grid locations 9 and 10 were well above average in the number of study area resident big game hunters and grid locations, 3, 4, 9, and 10 were above average in the total number of big game animals taken (Figure 3).

6.4.2 Upland Bird Game Hunting Activity

Among the 102,600 provincial resident hunters during the 1975-76 season, 32,832 hunted upland bird game during an average of 4.13 days per person. The upland bird game harvest success rate was 7.56 birds per person for a total provincial take of 248,210 upland birds (Table 8). Of the total upland bird game harvest, grouse accounted for 67.71 percent; pheasant, 24.07 percent; partridge, 8.05 percent; and ptarmigan, 0.17 percent. Of the 2,203 provincial resident hunters who hunted in the area during the 1975-76 season, 1,102 hunted upland bird game in the study area during an average of 3.40 days per person. The upland bird game harvest success rate was 5.20 birds per person, for a total take of 5,730 birds (2.31 percent of the provincial total) (Table 8). Of the total upland bird game harvest, grouse accounted for 80.8 percent; partridge, 11.5 percent; and ptarmigan, 7.7 percent. Among the 1,151 study area resident hunters during the 1975-76 season, 397 hunters hunted upland bird game in the area during an average of 5.54 days per person. The upland bird game harvest success rate was 7.74 birds per person, for a total take of 3,075 upland game birds (1.24 percent of the provincial total)

(Table 8). Of the total upland bird game harvest, grouse accounted for 96.7 percent and ptarmigan for 3.3 percent. The results presented here indicate that study area resident upland bird game hunters have a slightly higher success rate than provincial upland bird game hunters, although the success rate per day is slightly lower. There are also differences in the proportion of different species taken, primarily due to the fact that the availability of different species in the area differs from the species available province-wide.

Upland bird game hunter preferences for different species, measured in terms of the number of times each species was sought, is in part also dependent on species availability, but nevertheless differs from the profile of total harvest by species and differs between the study area resident hunters and Alberta resident hunters. Alberta resident hunter preference for different species was as follows: grouse, 58.37 percent; pheasant, 36.05 percent; partridge, 5.35 percent; and ptarmigan, 0.23 percent. Study area resident hunter preference for different species was as follows: grouse, 88.1 percent; ptarmigan, 10.9 percent; and pheasant, 1.0 percent.

The geographical distribution of upland bird game hunting activities of Alberta resident hunters is quite varied among 75 Wildlife Management Units throughout the Province (Figure 2). Each hunter during the 1975-76 season bagged an average of 7.56 birds in an average of 1.3 WMU locations. The average take per person per WMU was 5.82 birds. The upland bird game hunter success rates among the WMU locations ranged from 0.00 to 90.0 birds per person. On average, 569 upland bird game hunters were active in a WMU in which, 3,311 upland game birds were taken during the 1975-76 season. The number of hunters ranged from 201 to 3,827 persons. Those WMU locations which were above average in hunter success rates, total number of hunters, and total number of birds taken were as follows: 130, 132, 142, 156, 238, 252, 322, and 352.

Each study area resident hunter hunted upland bird game during the 1975-76 season in an average of 1.4 grid locations (Figure 3). The average take per person per grid location was 5.53 birds. The upland bird game hunter success rates among nine grid locations (excludes grid number 2, where upland bird game hunting was negligible) ranged from 2.00 to 9.50 birds per person. Grid locations 1, 5, 8, and 9 were above average in hunter success rates. On average, 56 study area resident upland bird game hunters were active in a grid location in which 308 upland bird game were taken during the 1975-76 season. The number of hunters ranged from 0 to 181 persons in the 10 grid locations. Grid locations 7, 9, and 10 were above average in both the number of study area resident upland bird game hunters and total number of upland birds taken (Figure 3).

6.4.3 Migratory Bird Game Hunting Activity

Among the 102,600 provincial resident hunters during the 1975-76 season, 61,868 hunters hunted waterfowl during an average of 5.33 days per person. The waterfowl harvest success rate was 17.74 waterfowl per person for a total provincial take of 1,097,538 waterfowl (Table 8). Of the total waterfowl harvest, ducks accounted for 90.73 percent and geese for 9.27 percent. Of the 2,203 provincial resident hunters who hunted in the study area during the 1975-76 season, 220 hunted waterfowl in the area during an average of one day per person. The waterfowl harvest success rate was 8.00 per person for a total take of 1,760 waterfowl (0.16 percent of the provincial total) (Table 8). Of the total waterfowl harvest, ducks accounted for 87 percent and geese for 13 percent. Among the 1,151 study area resident hunters during the 1975-76 season, 127 hunted waterfowl in the area during an average of 2.84 days per person. The waterfowl harvest success rate was 8.32 per person for a total take of 1,057 waterfowl (0.10 percent of the provincial total) (Table 8). Of the total waterfowl harvest, ducks accounted for 78 percent and geese for 22 percent. The results

presented here indicate that study area resident waterfowl hunters have a substantially lower success rate than provincial waterfowl hunters, although the success rate per day is only slightly lower. There are also differences in the proportion of different species taken, primarily due to the fact that the availability of different species in the study area differs from the availability of species province-wide.

Waterfowl hunter preference for different species, measured in terms of the number of times each species was sought, is in part also dependent on species availability, but nevertheless differs from the profile of total harvest by species and differs between study area resident hunters and Alberta resident hunters. Alberta resident hunter preference for different species was as follows: ducks, 67.36 percent and geese, 32.64 percent. Study area resident hunter preference for different species was as follows: ducks, 79.2 percent and geese, 20.8 percent.

The geographical distribution of waterfowl hunting activities of Alberta resident hunters is quite varied among 86 Wildlife Management Units throughout the Province (Figure 2). Each hunter during the 1975-76 season bagged, on average, 17.74 waterfowl in an average of 1.6 WMU locations. The average take per person per WMU is 11.09 waterfowl. The waterfowl hunter success rates among the WMU locations ranged from 0.00 to 62.00 waterfowl per person. On average, 1,151 waterfowl hunters were active in a WMU in which 12,762 waterfowl were taken during the 1975-76 season. The number of hunters ranged from 193 to 4,048 persons. Those WMU locations which were above average in hunter success rates, total number of hunters, and total number of waterfowl taken were as follows: 108, 158, 164, 200, 204, 206, 220, 222, 226, 228, 230, 238, 240, 242, 248, 252, 258, 336, and 508.

Each study area resident hunter during the 1975-76 season hunted waterfowl in an average of 1.04 grid locations (Figure 3). The average take per person per grid location was 8.0 waterfowl. The waterfowl success rates among five grid locations (excludes

grid numbers 2, 3, 5, 6, and 8 where waterfowl hunting was negligible) ranged from 3.33 to 31.25 waterfowl per person. Grid number 1 was well above average in hunter success rates. An average of 13 resident waterfowl hunters were active in a grid location in which 106 waterfowl were taken during the 1975-76 season. The number of hunters ranged from 0 to 56 persons in the 10 grid locations. Grid locations 1, 4, 9, and 10 were above average in the number of study area resident waterfowl hunters and grid numbers 1 and 10 were above average in the total number of waterfowl taken (Figure 3).

7. REFERENCES

Capel, R.E., and R.K. Pandey. 1972. Estimation of benefits from deer and moose hunting in Manitoba. Can. J. Agric. Econ. 20:7-16.

Hanus, Frank. 1974. Roles of birds in recreational activities of Saskatchewanians. Institute for Northern Studies. Saskatoon, Sask.

Miller, R.J. 1971a. Alberta hunting and fishing resources: an economic evaluation. Alta. Dept. of Agric. Edmonton, Alberta.

Miller, R.J. 1971b. An economic evaluation of Alberta's sport hunting and fishing resources. M.Sc. Thesis. University of Alberta.

Moncrieff, P.M. 1972. Alternative land uses in southwestern Alberta: a study in natural resource economics. M.Sc. Thesis. University of Alberta.

Pattison, W.S. 1972. Demand for fish and wildlife resources in the foothills study area. Alta. Dept. of Agric. Edmonton, Alberta.

Pattison, W.S., and W.E. Phillips. 1971. Economic evaluation of big game hunting: an Alberta case study. Can. J. Agric. Econ. 19:72-85.

Phillips, W.E., and W.S. Pattison. 1972. Hunter guiding activity in northern Alberta: wildlife economics and policy. Dept. of Rural Economy. University of Alberta. Bull. 14.

Romm, J. 1969. The value of reservoir recreation. Cornell University Water Resources and Marine Sciences Center and Dept. of Agric. Econ. Tech. Bull. 19.

Ross, C. 1975. Economic evaluation of resident big game hunting in Saskatchewan. Dept. of Tourism and Renewable Resources. Research Report 1.

Sewell, W.R.D., and J. Rostion. 1970. Recreational fishing evaluation. Can. Dept. of Fisheries and Forestry. Queens Printer, Ottawa.

Snipe, J.H. 1970. The ecological and economic impact of water resource development in southern Alberta: the case of fish and wildlife. M.Sc. Thesis. University of Alberta.

Wennergren, E.B. n.d. Recreational resource values: some empirical estimates. in Water resources and economic development of the west. Western agricultural Economic Research Council. 13:13-28.

8. APPENDICES

8.1 SURVEY QUESTIONNAIRES AND COVERING LETTERS

8.1.1 Provincial Hunting Questionnaire and Covering Letter

403 / 427-3943

Penthouse Jarvis Building,
9925 - 107 Street
Edmonton, Alberta, Canada.
T5K 2H9

alberta canada

ALBERTA OIL SANDS
ENVIRONMENTAL RESEARCH PROGRAM

Dear Sportsman:

The Alberta Oil Sands Environmental Research Program (AOSERP) was begun in 1975 by the Governments of Alberta and Canada, with the goal of directing, coordinating, funding, and supervising research into the environmental effects of Athabasca oil sands development.

As part of this research effort, AOSERP is conducting a series of surveys and interviews in Alberta to determine the extent of recreational activities related to fish and wildlife resources. The information collected will contribute to a greater understanding and more effective management of fish and wildlife resources throughout Alberta, and especially in the Athabasca Oil Sands Area.

We request your cooperation in completing, as best you can, the enclosed questionnaire. Your answers will be combined with those of other respondents so as to ensure that your individual response will be held in strict confidence.

We hope you share our objectives in making fish and wildlife management programs more responsive to the needs of present and future Albertans. Your anticipated cooperation and assistance is greatly appreciated.

Yours truly,

Dave Neave
Dave Neave
Chairman, Terrestrial
Fauna Committee

Ron Wallace
Ron Wallace
Chairman, Aquatic
Fauna Committee

Sponsored jointly by

Alberta Environment

Environment Canada

Environnement Canada

alberta canada

ALBERTA OIL SANDS
ENVIRONMENTAL RESEARCH PROGRAM

403 / 427-3943

Penthouse Jarvis Building,
9925 - 107 Street
Edmonton, Alberta, Canada.
T5K 2H9

Dear Sportsman:

Several weeks ago you were mailed a copy of the enclosed questionnaire and covering letter. If you have completed and returned the original questionnaire, please disregard the enclosed. We appreciate your assistance. If for some reason you have not completed and returned the questionnaire, we would be grateful if you would take a few minutes and complete the enclosed. We are anxious to receive as many returns as possible in order to ensure the success of this project.

Thanking you in advance.

Yours truly,

Dave Neave

Dave Neave
Chairman, Terrestrial
Fauna Committee.

Ron Wallace
Chairman, Aquatic
Fauna Committee.

Sponsored jointly by

Alberta Environment

Environment Canada

Environnement Canada

CONFIDENTIAL

ALBERTA HUNTING SURVEY 1975 HUNTING SEASON

1. Residence (city or town) _____ 2. Age _____

3. Sex Male ☐ 4. Occupation _____
Female ☐

5. Including yourself, how many of your immediate family are living at your residence? (Please circle the appropriate number.)

1 2 3 4 5 6 7 8 9

6. Approximately what was the total amount of money earned by you and your family in 1975? Estimate and check one.

Less than $5,000 ☐	$20,001 - $25,000 ☐
$ 5,001 - 10,000 ☐	$25,001 - 30,000 ☐
$10,001 - 15,000 ☐	$30,001 - 35,000 ☐
$15,001 - 20,000 ☐	$35,001 or over ☐

7. Education: (Please circle highest year completed.)

Grade School	0	1	2	3	4	5	6	7	8	9
High School	10	11	12							
University	1	2	3	4	5	6	7	8	9	
Technical School	1	2	3	4						

8. Please respond to each question below by checking the appropriate answer.

	Yes	No
(a) Have you ever hunted before the 1975 season?	☐	☐
(b) Have you ever hunted in Alberta before the 1975 season?	☐	☐
(c) Have you ever hunted in the Athabasca Oil Sands Area before the 1975 season? (see the map attached for a description of this area).	☐	☐

9. What are the main reasons that you go hunting? Rank the following items in order of importance; 1st, 2nd, 3rd choices.

(a) for meat _____
(b) for a trophy _____
(c) for outdoor enjoyment _____
(d) other (please specify _____ _____

10. Which Alberta licenses did you hold in 1975? (Please check where applicable).

- ☐ Bird Game
- ☐ Migratory Bird Game
- ☐ Mule Deer
- ☐ Whitetailed Deer
- ☐ Angling License (1975-76 season)
- ☐ Moose
- ☐ Moose (Zone I)
- ☐ Elk
- ☐ Caribou
- ☐ Black Bear
- ☐ Grizzly Bear

Other (please specify) _____

_____

11. Did you hunt for sport AT LEAST ONCE during the 1975 hunting season in Alberta? (check.)

YES ☐ IF "YES" PLEASE COMPLETE ALL THE QUESTIONS THAT FOLLOW.

NO ☐ IF "NO" PLEASE RETURN THIS QUESTIONNAIRE IN THE SELF-ADDRESSED ENVELOPE THAT HAS BEEN PROVIDED

12. If you DID hunt in Alberta during the 1975 season, please complete the following information for each hunting trip taken. (NOTE: 1 FULL day of hunting is 4 or more hours spent in the activity.)

Trip No.	Area(s) Hunted: Nearest Town, Landmark or Wildlife Management Unit	Days Hunted in Area (Estimate to nearest 1/2 day)	Miles to Area	No. in Hunting Party	Game you Hunted in Area	Game Bagged by Yourself Only (type & number)
Example	Vermilion	3 1/2	100	2	Ducks & Geese	10 ducks, 2 geese
1.						
2.						
3.						
4.						
5.						
6.						
7.						

13. Based on your experience, how would you rate your hunting trips in Alberta during the 1975 season? (check where applicable).

	Very Good	Good	Fair	Poor	Very Poor
Big Game					
Upland Bird Game					
Waterfowl					

14. Please estimate as best you can the amount of money you personally spent for hunting purposes in Alberta during the 1975 season. Please estimate for each category below as it applies to you.

	HUNTING FOR: Big Game	Upland Birds	Waterfowl
TRAVEL COSTS (includes gasoline, oil, air fare, etc.)	$		
LODGING (includes hotels, motels, camping fees, etc.)	$		
FOOD (includes restaurant meals and food purchased for hunting trips, etc.)	$		
BEVERAGES	$		
RENTALS (includes rental of hunting equipment, etc.)	$		
GUIDES (includes guiding fees, etc.)	$		
AMMUNITION	$		
HUNTING SERVICES (includes packer fees, taxidermy, etc.)	$		
OTHER (please specify) _____	$		
_____	$		

15. If you made any major purchase in Alberta in 1975 that are used in whole or in part for hunting in Alberta please list the item(s) purchased, the purchase price and the extent to which this item is used for hunting in Alberta.

ITEM	PURCHASE PRICE $	AMOUNT OF USE FOR ALBERTA HUNTING 100%	75%	50%	25%	0%
e.g. rifle	$160	✔				

16. If you participated in the following hunting activities in Alberta during the 1975 season, how much value in dollars per day was it worth to you above what you spent on travel and other expenses (circle the appropriate dollar value).

Hunting For	Average Dollar Value Per Day											Higher or Other Dollar Value (specify)
Big Game	0	1	2	3	4	5	6	7	8	9	10	
		12	14	16	18	20	22	24	26	28	30	$ _____
Upland Birds	0	1	2	3	4	5	6	7	8	9	10	
		12	14	16	18	20	22	24	26	28	30	$ _____
Waterfowl	0	1	2	3	4	5	6	7	8	9	10	
		12	14	16	18	20	22	24	26	28	30	$ _____

17. Approximately how much money would you have to be paid NOT to hunt in Alberta FOR ONE YEAR (Estimate and circle the least amount acceptable to you).

$	0	1	2	3	4	5	6	7	8	9
$		10	20	30	40	50	60	70	80	90
$		100	200	300	400	500	600	700	800	900

If higher or other dollar value please specify. $ _____

18. Give any additional comments that might help evaluate the sport hunting in Alberta.

_____

_____

_____

19. Of the hunting trips you took during the 1975 season, were any of them to the Athabasca Oil Sands Area? (see the map attached for a description of this area).

YES ☐ IF "YES" PLEASE COMPLETE ALL THE QUESTIONS THAT FOLLOW.

NO ☐ IF "NO" PLEASE RETURN THIS QUESTIONNAIRE IN THE SELF-ADDRESSED ENVELOPE THAT HAS BEEN PROVIDED.

20. Please indicate with X's on the map attached, the areas you hunted during the 1975 season in the Athabasca Oil Sands Area. Please be as accurate as possible.

21. How would you rate the hunting trips to the Athabasca Oil Sands Area compared to your other hunting trips in Alberta as a whole? (check where applicable),

	Better Than	As Good As	Worse Than
Big Game			
Upland Birds			
Waterfowl			

22. If you participated in the following hunting activities in the Athabasca Oil Sands Area during the 1975-76 season, how much value in dollars per day was it worth to you above what you spent on travel and other expenses? (circle the appropriate dollar value).

HUNTING FOR:	AVERAGE DOLLAR VALUE PER DAY											HIGHER OR OTHER DOLLAR VALUE (SPECIFY)
Big Game	0	1	2	3	4	5	6	7	8	9	10	$ _____
		12	14	16	18	20	22	24	26	28	30	
Upland Birds	0	1	2	3	4	5	6	7	8	9	10	$ _____
		12	14	16	18	20	22	24	26	28	30	
Waterfowl	0	1	2	3	4	5	6	7	8	9	10	$ _____ _____
		12	14	16	18	20	22	24	26	28	30	

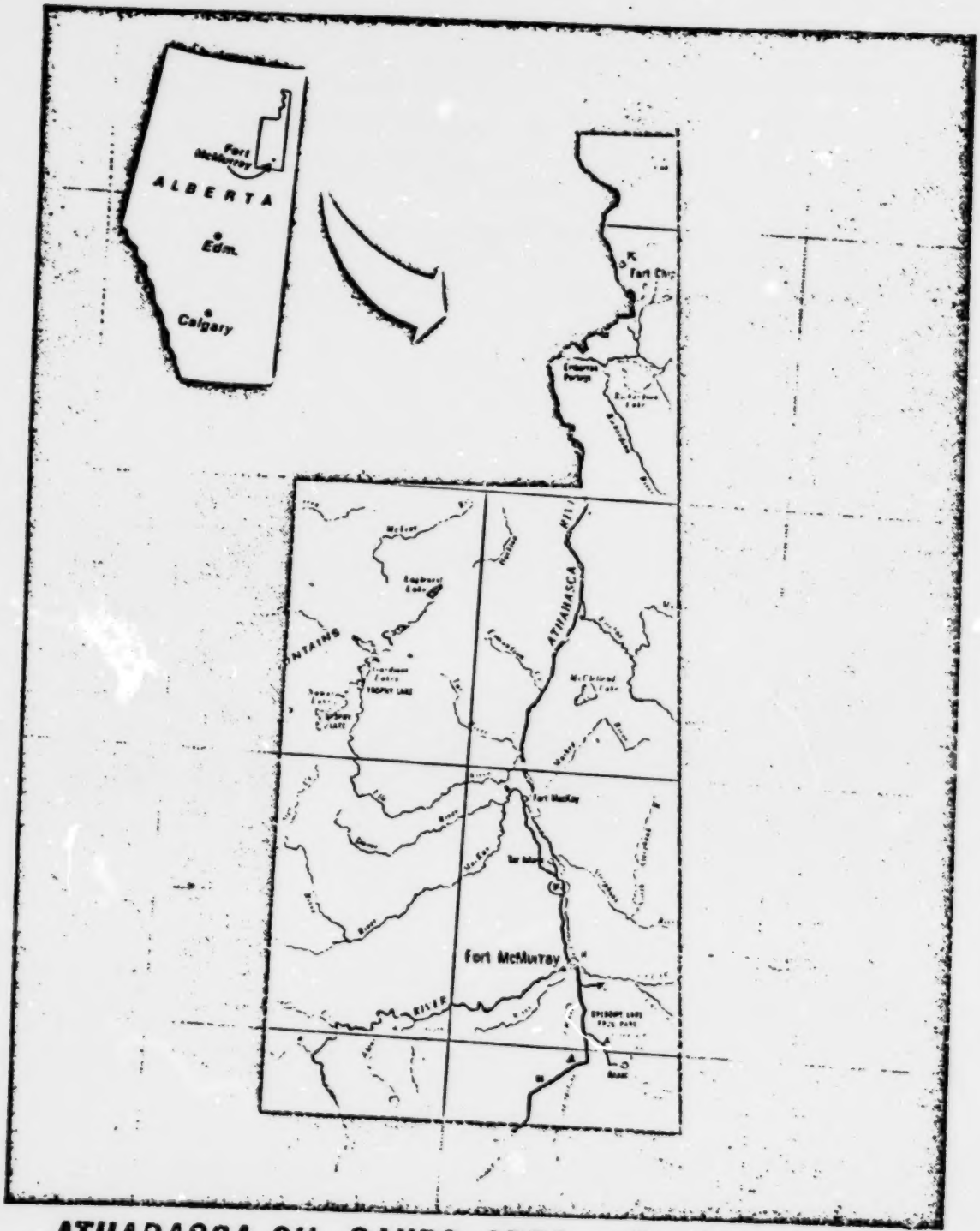
23. Provide any additional comments that might help evaluate the sport hunting in the Athabasca Oil Sands Area.

_____

_____

_____

THANK YOU VERY MUCH FOR YOUR CO-OPERATION IN ANSWERING AND RETURNING THIS QUESTIONNAIRE.



ATHABASCA OIL SANDS AREA

alberta canada

ALBERTA OIL SANDS ENVIRONMENTAL RESEARCH PROGRAM

8.1.2 AOSERP Study Area Hunting Questionnaire and Covering Letters

alberta canada

ALBERTA OIL SANDS
ENVIRONMENTAL RESEARCH PROGRAM

403/427-3943

Penthouse Jarvis Building,
9925 - 107 Street
Edmonton, Alberta, Canada.
T5K 2H8

Dear Sportsman:

The Alberta Oil Sands Environmental Research Program (AOSERP) was begun in 1975 by the Governments of Alberta and Canada, with the goal of directing, coordinating, funding, and supervising research into the environmental effects of Athabasca oil sands development.

As part of this research effort, AOSERP is conducting a series of surveys and interviews in Alberta to determine the extent of recreational activities related to fish and wildlife resources. The information collected will contribute to a greater understanding and more effective management of fish and wildlife resources throughout Alberta, and especially in the Athabasca Oil Sands Area.

We request your cooperation in completing, as best you can, the enclosed questionnaire. Your answers will be combined with those of other respondents so as to ensure that your individual response will be held in strict confidence.

We hope you share our objectives in making fish and wildlife management programs more responsive to the needs of present and future Albertans. Your anticipated cooperation and assistance is greatly appreciated.

Yours truly,

Dave Neave
Dave Neave
Chairman, Terrestrial
Fauna Committee

Ron Wallace
Chairman, Aquatic
Fauna Committee

Sponsored jointly by

Alberta ENVIRONMENT

Environment Canada

Environnement Canada

89
96

alberta canada

ALBERTA OIL SANDS
ENVIRONMENTAL RESEARCH PROGRAM

403 / 427-3943

Penthouse Jarvis Building,
9925 - 107 Street
Edmonton, Alberta, Canada.
T5K 2H9

Dear Sportsman:

Several weeks ago you were mailed a copy of the enclosed questionnaire and covering letter. If you have completed and returned the original questionnaire, please disregard the enclosed. We appreciate your assistance. If for some reason you have not completed and returned the questionnaire, we would be grateful if you would take a few minutes and complete the enclosed. We are anxious to receive as many returns as possible in order to ensure the success of this project.

Thanking you in advance.

Yours truly,

Dave Neave

Dave Neave
Chairman, Terrestrial
Fauna Committee.

Ron Wallace
Chairman, Aquatic
Fauna Committee.

Sponsored jointly by

Alberta ENVIRONMENT

Environment Canada

Environnement Canada

CONFIDENTIAL

N° 41635

HUNTING SURVEY - 1975 HUNTING SEASON

1. Residence (city or town) _____ 2. Age _____

3. Sex Male ☐ 4. Occupation _____

Female ☐

5. Including yourself, how many of your immediate family are living at your residence? (Please circle the appropriate number.)

1 2 3 4 5 6 7 8 9

6. Approximately what was the total amount of money earned by you and your family in 1975? Estimate and check one.

Less than $5,000 ☐	$20,001 - 25,000 ☐
$ 5,001 - 10,000 ☐	$25,001 - 30,000 ☐
$10,001 - 15,000 ☐	$30,001 - 35,000 ☐
$15,001 - 20,000 ☐	$35,001 or over ☐

7. Education: (please circle highest year completed)

Grade School	0	1	2	3	4	5	6	7	8	9
High School	10	11	12							
University	1	2	3	4	5	6	7	8	9	
Technical School	1	2	3	4						

8. Please respond to each question below by checking the appropriate answer.

	Yes	No
(a) Did you hunt AT LEAST ONCE during the 1975 season in Alberta?	☐	☐
(b) Have you ever hunted before the 1975 season?	☐	☐
(c) Have you ever hunted in Alberta before the 1975 season?	☐	☐
(d) Have you ever hunted in the Athabasca Oil Sands Area before the 1975 season? (see the map attached for a description of this area).	☐	☐

9. What are the main reasons that you go hunting? Rank the following items in order of importance; 1st, 2nd, 3rd choice.

(a) for meat _____
(b) for a trophy _____
(c) for outdoor enjoyment _____
(d) other (please specify)

_____ _____

10. Which Alberta licenses did you hold in 1975? (Please check where applicable.)

Bird Game	☐	Moose	☐
Migratory Bird Game	☐	Moose (Zone I)	☐
Mule Deer	☐	Elk	☐
Whitetailed Deer	☐	Caribou	☐
Angling License (1975-76 season)	☐	Black Bear	☐
		Grizzly Bear	☐

Others (please specify) _____

_____

11. Did you hunt in the Athabasca Oil Sands Area during the 1975 hunting season? (see the map attached for a description of this area).

Yes ☐ IF "YES" PLEASE COMPLETE ALL OF THE QUESTIONS THAT FOLLOW.

No ☐ IF "NO" PLEASE RETURN THIS QUESTIONNAIRE IN THE SELF-ADDRESSED ENVELOPE THAT HAS BEEN PROVIDED.

12. If you DID hunt in the Athabasca Oil Sands Area during the 1975 season, please complete the following information for each hunting trip taken. (NOTE: 1 FULL day of hunting is 4 or more hours spent in the activity.)

Trip No.	Area(s) Hunted: Nearest Town Landmark or Wildlife Management Unit	Days Hunted in Area (Estimate to nearest 1/2 day)	Miles to Area	Number in Hunting Party	Game you Hunted in Area	Game Bagged by Yourself Only (type and number)
Example	Ft. McMurray	3 1/2	100	2	Moose	Zero
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						

13. Please indicate, by placing the trip number on the map attached, the areas you hunted in the Athabasca Oil Sands Area during the 1975-76 season. Please carry out this procedure for every trip you listed in the table above.

14. Based on your experience, how would you rate your hunting trips in the Athabasca Oil Sands Area during the 1975 season? (check where applicable).

	Very Good	Good	Fair	Poor	Very Poor
Big Game					
Upland Bird Game					
Waterfowl					

15. If you participated in the following hunting activities in the Athabasca Oil Sands Area during the 1975 season, how much value in dollars per day was it worth to you above what you spent on travel and other expenses? (Circle the appropriate dollar value where applicable.)

HUNTING FOR:	AVERAGE DOLLAR VALUE PER DAY											HIGHER OR OTHER DOLLAR VALUE (SPECIFY)
Moose	0	1	2	3	4	5	6	7	8	9	10	
		12	14	16	18	20	22	24	26	28	30	$ _____
Whitetail Deer	0	1	2	3	4	5	6	7	8	9	10	
		12	14	16	18	20	22	24	26	28	30	$ _____
Mule Deer	0	1	2	3	4	5	6	7	8	9	10	
		12	14	16	18	20	22	24	26	28	30	$ _____
Upland Birds	0	1	2	3	4	5	6	7	8	9	10	
		12	14	16	18	20	22	24	26	28	30	$ _____
Waterfowl	0	1	2	3	4	5	6	7	8	9	10	
		12	14	16	18	20	22	24	26	28	30	$ _____
Other (please specify)												
#1 _____	0	1	2	3	4	5	6	7	8	9	10	
		12	14	16	18	20	22	24	26	28	30	$ _____
#2 _____	0	1	2	3	4	5	6	7	8	9	10	
		12	14	16	18	20	22	24	26	28	30	$ _____

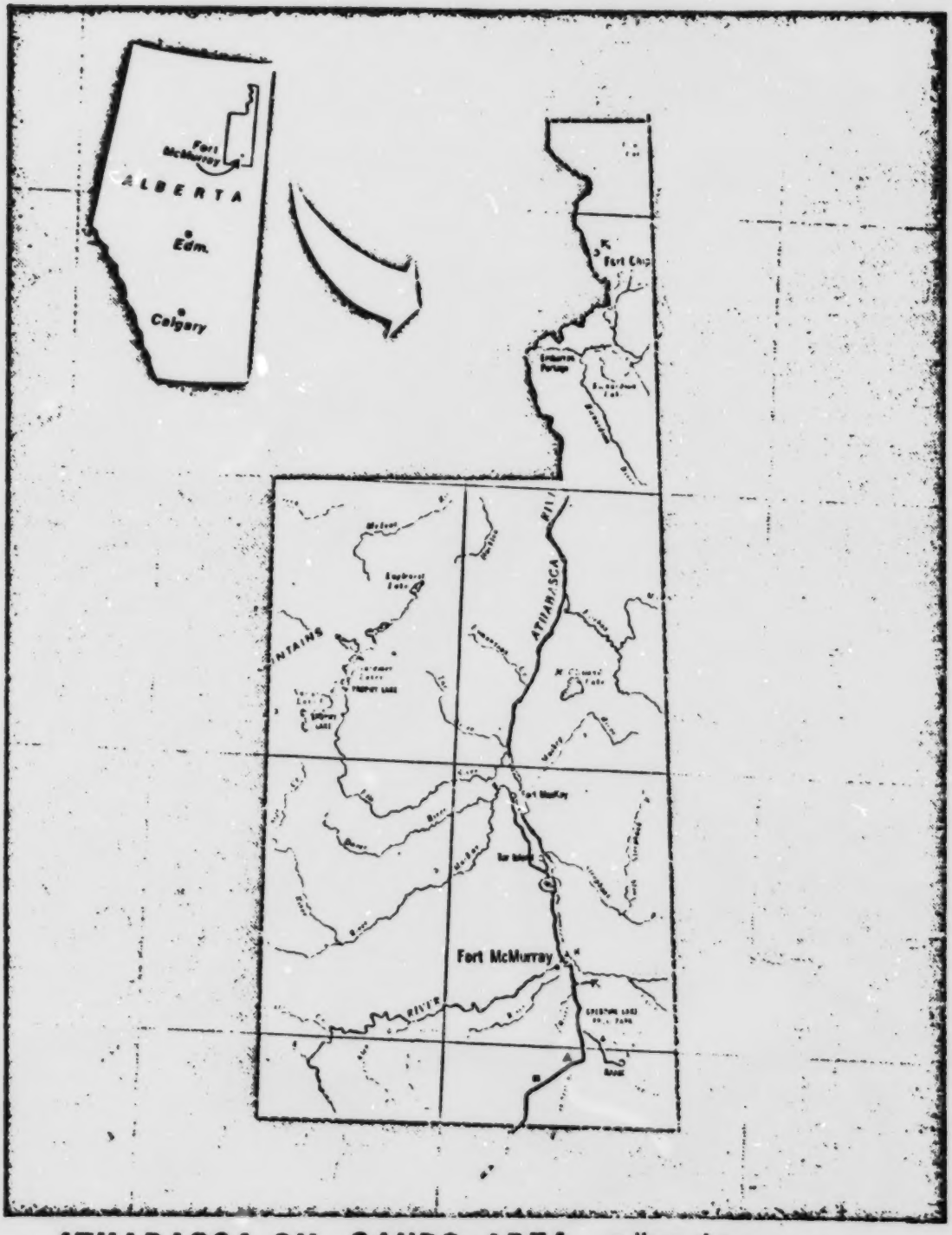
16. Give any additional comments that might help to evaluate the sport hunting in the Athabasca Oil Sands Area.

_____

_____

_____

THANK YOU VERY MUCH FOP YOUR CO-OPERATION IN ANSWERING AND RETURNING THIS QUESTIONNAIRE.



ATHABASCA OIL SANDS AREA

alberta canada

ALBERTA OIL SANDS ENVIRONMENTAL RESEARCH PROGRAM

8.2 PROVINCIAL HUNTING SURVEY TABLES

Table 9. Residences of provincial hunting survey respondents, 1975-76 season.

Location	Number of Respondents	Percent of Total Response	Location	Number of Respondents	Percent of Total Response
Not Specified	20	2.9	Caroline	1	0.1
Out of Province[a]	2	0.3	Carstairs	3	0.4
Airdrie	2	0.3	Castor	3	0.4
Andrew	1	0.1	Cereal	1	0.1
Ashmont	1	0.1	Champion	1	0.1
Athabasca	4	0.6	Chisholm	1	0.1
Atmore	1	0.1	Claresholm	4	0.6
Balzac	1	0.1	Clyde	1	0.1
Banff	2	0.3	Coaldale	2	0.3
Barrhead	5	0.7	Cochrane	2	0.3
Bawlf	2	0.3	Cold Lake	2	0.3
Beaumont	2	0.3	Coleman	2	0.3
Beaverlodge	2	0.3	Consort	2	0.3
Beiseker	1	0.1	Coronation	2	0.3
Bellevue	1	0.1	Coutts	1	0.1
Bentley	1	0.1	Daysland	1	0.1
Berwyn	1	0.1	Devon	2	0.3
Black Diamond	1	0.1	Didsbury	1	0.1
Blackfalds	4	0.6	Dixonville	1	0.1
Blairmore	5	0.7	Donalda	3	0.4
Bonnyville	4	0.6	Drayton Valley	5	0.7
Breynat	1	0.1	Drumheller	2	0.3
Brooks	6	0.9	Eaglesham	1	0.1
Bruderheim	1	0.1	East Coulee	1	0.1
Cadogan	1	0.1	Eckville	3	0.4
Calgary	118	17.4	Edmonton	142	21.0
Camrose	7	1.0	Edson	5	0.7
Cardston	4	0.6	Elk Point	2	0.3

Continued ...

Table 9. Continued.

Location	Number of Respondents	Percent of Total Response	Location	Number of Respondents	Percent of Total Response
Enilda	1	0.1	Irma	2	0.3
Etzikom	1	0.1	Jasper	1	0.1
Eureka River	1	0.1	Jean-Cote	1	0.1
Evansburg	2	0.3	Killiam	1	0.1
Fairview	1	0.1	Kitscoty	1	0.1
Fawcett	1	0.1	La Crete	1	0.1
Ferintosh	1	0.1	Lac La Biche	1	0.1
Forestburg	1	0.1	Lacombe	3	0.4
Fort MacLeod	1	0.1	La Glace	1	0.1
Fort McMurray	8	1.2	Lamont	2	0.3
Fort Saskatchewan	2	0.3	Leduc	3	0.4
Fox Creek	1	0.1	Legal	1	0.1
Grand Centre	3	0.4	Leslieville	1	0.1
Grande Cache	1	0.1	Lethbridge	23	3.4
Grande Prairie	15	2.2	Little Smoky	1	0.1
Grouard	1	0.1	Lloydminister (Alberta portion)	3	0.4
Gull Lake	1	0.1	Longview	1	0.1
Hanna	2	0.3	McLennan	2	0.3
Hardisty	1	0.1	Mayerthorpe	1	0.1
Hay Lakes	1	0.1	Medicine Hat	12	1.8
High Level	1	0.1	Medley	5	0.7
High Prairie	4	0.6	Millet	2	0.3
High River	2	0.3	Morinville	1	0.1
Hillcrest	1	0.1	Mundare	1	0.1
Hines Creek	2	0.3	Nanton	1	0.1
Hinton	4	0.6	Nevis	1	0.1
Hythe	1	0.1	New Norway	1	0.1
Innisfail	5	0.7	Nobleford	1	0.1
Innisfree	1	0.1			

Continued ...

Table 9. Continued.

Location	Number of Respondents	Percent of Total Response	Location	Number of Respondents	Percent of Total Response
Okotoks	2	0.3	Slave Lake	5	0.7
Olds	3	0.4	Smith	1	0.1
Oyen	1	0.1	Spirit River	2	0.3
Peace River	5	0.7	Spruce Grove	4	0.6
Peers	2	0.3	Standard	1	0.1
Penhold	2	0.3	Stettler	1	0.1
Perryvale	1	0.1	Stony Plain	2	0.3
Picture Butte	1	0.1	Strathmore	1	0.1
Pincher Creek	2	0.3	Sundre	1	0.1
Point Alison	1	0.1	Swan Hills	2	0.3
Ponoka	3	0.4	Sylvan Lake	1	0.1
Provost	1	0.1	Taber	3	0.4
Rainbow Lake	1	0.1	Tangent	2	0.3
Raymond	1	0.1	Tees	1	0.1
Redcliff	1	0.1	Thorsby	1	0.1
Red Deer	16	2.4	Three Hills	2	0.3
Rimbey	1	0.1	Tofield	2	0.3
Robb	1	0.1	Trochu	1	0.1
Rochan Sands	1	0.1	Two Hills	1	0.1
Rochester	1	0.1	Valleyview	3	0.4
Rocky Mountain House	3	0.4	Vauxhall	1	0.1
Rycroft	1	0.1	Vermilion	2	0.3
St. Albert	4	0.6	Viking	2	0.3
St. Lina	1	0.1	Vilna	1	0.1
St. Paul	5	0.7	Wabamun	1	0.1
Sangudo	1	0.1	Wainwright	3	0.4
Sexsmith	1	0.1	Wanham	1	0.1
Sherwood Park	11	1.6	Warner	1	0.1

Continued ...

Table 9. Concluded.

Location	Number of Respondents	Percent of Total Response	Location	Number of Respondents	Percent of Total Response
Water Valley	1	0.1	Whitlaw	2	0.3
Wembley	1	0.1	Willingdon	1	0.1
Westlock	2	0.3	Winfield	1	0.1
Wetaskiwin	2	0.3	Worsley	1	0.1
Whitecourt	6	0.9			
			TOTAL	680	100.0

[a]Respondents are now living outside of the Province, but during the 1975-76 hunting season were employed or resided in the Province.

Table 10. Age distribution of provincial hunting survey respondents, 1975-76 season.

Age	Number of Respondents	Percent of Total Response	Age	Number of Respondents	Percent of Total Response	Age	Number of Respondents	Percent of Total Response
No Answer	3	0.4	35	14	2.1	57	3	0.4
14	2	0.3	36	18	2.7	58	6	0.9
15	7	1.0	37	17	2.5	59	7	1.0
16	12	1.8	38	12	1.8	60	9	1.3
17	21	3.1	39	9	1.3	61	7	1.0
18	33	4.9	40	15	2.2	62	4	0.6
19	21	3.1	41	15	2.2	63	1	0.1
20	25	3.7	42	13	1.9	64	1	0.1
21	23	3.4	43	9	1.3	65	2	0.3
22	18	2.7	44	7	1.0	66	1	0.1
23	20	3.0	45	8	1.2	68	4	0.6
24	23	3.4	46	11	1.6	69	2	0.3
25	14	2.1	47	10	1.5	70	1	0.1
26	20	3.0	48	10	1.5	71	1	0.1
27	23	3.4	49	7	1.0	74	2	0.3
28	23	3.4	50	12	1.8	75	2	0.3
29	22	3.2	51	6	0.9	76	1	0.1
30	22	3.2	52	10	1.5	78	1	0.1
31	13	1.9	53	6	0.9			
32	18	2.7	54	9	1.3	TOTAL	680	100.0
33	23	3.4	55	9	1.3			
34	7	1.0	56	5	0.7			

Mean, 34.19; Mode, 18.00; Median, 31.08; Standard Deviation, 11.33.

Table 11. Male-female distribution of provincial hunting survey respondents, 1975-76 season.

Sex	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
No Answer	26	3.8	n.a.
Male	639	94.0	97.7
Female	15	2.2	2.3
TOTAL	680	100.0	100.0

[a]The percentages are calculated with the exclusion of the 26 respondents who gave no answer (680 - 26 = 654).

Table 12. Occupations of provincial hunting survey respondents, 1975-76 season.

Occupation	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
Not Specified	12	1.8	n.a.
Professional & Technical	86	12.7	12.9
Managerial	59	8.7	8.8
Contractor	5	0.7	0.7
Farming	66	9.7	9.9
Tradesmen	112	16.5	16.8
Transportation & Communications	14	2.1	2.1
Service Occupations	39	5.7	5.8
Sales	39	5.7	5.8
Operative	46	6.8	7.0
Armed Forces	13	1.9	1.9
Clerical	13	1.9	1.9
Labourers	72	10.6	10.8
Homemaker	8	1.2	1.2
Student	57	8.4	8.5
Retired	18	2.6	2.7
Not in Labour Force	3	0.4	0.5
Miscellaneous	18	2.6	2.7
TOTAL	680	100.0	100.0

[a]The percentages are calculated with the exclusion of the 12 respondents who did not indicate their occupations (680 - 12 = 668).

Table 13. Family size of provincial hunting survey respondents, 1975-76 season.

Family Size	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
Not Specified	22	3.2	n.a.
1	70	10.3	10.6
2	133	19.6	20.2
3	117	17.2	17.8
4	166	24.4	25.2
5	102	15.0	15.5
6	44	6.5	6.7
7	17	2.5	2.6
8	6	0.9	0.9
9	3	0.4	0.5
TOTAL	680	100.0	100.0

Mean[a], 3.52; Mode[a], 4.00; Median[a], 3.16, Standard Deviation[a], 1.46.

[a]The calculations are made with the exclusion of the 22 respondents who did not indicate their family size (680 - 22 = 658).

Table 14. Family income of provincial hunting survey respondents, 1975-76 season.

Income Class	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
No Answer	44	6.5	n.a.
Less than $5,000	40	5.9	6.3
$ 5,001-$10,000	97	14.3	15.2
$10,001-$15,000	151	22.2	23.7
$15,001-$20,000	142	20.9	22.3
$20,001-$25,000	83	12.2	13.1
$25,001-$30,000	41	6.0	6.5
$30,001-$35,000	20	2.9	3.1
$35,001 and over[b]	62	9.1	9.8
TOTAL	680	100.0	100.0

Mean[a,b], $18,349; Mode[a,b], $12,500; Median[a,b], $17,500; Standard Deviation[a,b], $11,507.

[a]The calculations are made with the exclusion of the 44 respondents who did not indicate their family income (680 - 44 = 636).

[b]Calculations are made on the assumption that the 61 respondents in the $35,001 and over income class are distributed as follows:

$35,001-$40,000,	18
$40,001-$45,000,	14
$45,001-$50,000,	12
$50,001-$55,000,	10
$55,001-$60,000,	8

Midpoints and corresponding frequences for each income class were utilized in the calculations. These assumptions are such that the calculations provided are estimates of actual sample measures.

Table 15. Years of formal education of provincial hunting survey respondents, 1975-76 season.

Education Category	Number of Years	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Adjusted Cumulative Percent of Response[a]
No Answer	n.a.	11	1.5	n.a.	n.a.
Grade School	0	1	0.1	0.1	0.1
	1	1	0.1	0.1	0.2
	2	0	0.0	0.0	0.2
	3	2	0.3	0.3	0.5
	4	2	0.3	0.3	0.8
	5	3	0.4	0.4	1.2
	6	4	0.6	0.6	1.8
	7	9	1.3	1.4	3.2
	8	52	7.7	7.8	11.0
	9	56	8.3	8.4	19.4
High School	10	56	8.3	8.4	27.8
	11	76	11.2	11.4	39.2
	12	162	23.8	24.2	63.4
University	1	10	1.5	1.5	64.9
	2	2	3.1	3.1	68.0
	3	7	1.0	1.0	69.0
	4	41	6.0	6.1	75.1

Continued ...

Table 15. Concluded.

Education Category	Number of Years	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Adjusted Cumulative Percent of Response[a]
University (continued)	5	18	2.6	2.7	77.8
	6	10	1.5	1.5	79.3
	7	9	1.3	1.3	80.6
	8	4	0.6	0.6	81.2
	9	3	0.4	0.4	81.6
Technical	1	24	3.5	3.6	85.2
	2	42	6.2	6.3	91.5
	3	17	2.5	2.6	94.1
	4	39	5.8	5.9	100.0
TOTAL		680	100.0	100.0	

[a]Calculations are made with the exclusion of the number of respondents who did not indicate their years of formal education (680 - 11 = 669).

Table 16. Previous hunting experience of provincial hunting survey respondents, 1975-76 season.

Category	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
No Answer	2	0.3	n.a
Hunted for Sport Prior to the 1975-76 season	638	93.8	94.1
Did Not Hunt for Sport Prior to the 1975-76 Season	40	5.9	5.9
TOTAL	680	100.0	100.0

[a]The calculations are made with the exclusion of the two respondents who did not indicate previous hunting experience.

Table 17. Previous provincial hunting experience of provincial hunting survey respondents, 1975-76 season.

Category	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
No Answer	3	0.4	n.a.
Hunted in Alberta Prior to 1975-76 Season	592	87.1	87.4
Did Not Hunt in Alberta Prior to the 1975-76 Season	85	12.5	12.6
TOTAL	680	100.0	100.0

[a]The calculations are made with the exclusion of the three respondents who did not indicate provincial hunting experience prior to the 1975-76 season.

Table 18. Previous AOSERP study area hunting experience of provincial hunting survey respondents, 1975-76 season.

Category	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
No Answer	6	0.9	n.a.
Hunted in the AOSERP Study Area Prior to the 1975-76 Season	34	5.0	5.0
Did Not Hunt in the AOSERP Study Area Prior to the 1975-76 Season	640	94.1	95.0
TOTAL	680	100.0	100.0

[a]The calculations are made with the exclusion of the six respondents who did not indicate whether they hunted in the AOSERP study area prior to the 1975-76 season (680 - 6 = 674).

Table 19. Reasons for hunting given by provincial hunting survey respondents, 1975-76 season.

Reason for Hunting	Number of Respondents[a]						Score[b]	Percent of Total Score
	Rank of Choice				Checked but not ranked	Not Ranked		
	1st	2nd	3rd	4th				
Enjoyment	416	179	11	1	35	0	2,329	43.9
Meat	214	288	65	2	34	39	1,954	36.9
Trophy	5	62	300	18	5	252	839	15.8
Other Reasons:								
- Relaxation	2	4	7	0	0		34	
- Exercise	0	4	8	1	0		29	
- Sport, Challenge, or Stalking	0	1	10	0	0		23	
- Companionship	0	1	8	2	0		21	
- To Accompany or Teach Children	1	2	1	1	0		13	
- To Work Dog	1	1	1	0	0		9	
- To Protect Grain Crop	1	0	0	0	1		7	
- To Take Pictures	1	1	0	0	0		7	
- To See or Explore Country	0	1	2	0	0		7	
- To Promote Conservation	0	1	1	2	0		7	
- To Get Away from Wife	0	1	2	0	0		7	
- Pelts, Hides, or Feathers	0	1	2	0	0		7	
- Enjoyment of Shooting	0	0	2	0	0		4	
- To accompany Husband	1	0	0	0	0		4	
- Dune Buggy Use	0	0	1	0	0		2	
SUBTOTAL	7	18	44	6	1	563	181	3.4
TOTAL	642	547	421	27	75		5,303	100.0

[a]Among the 680 respondents, 38 did not provide reasons for hunting, thus leaving 642 respondents.

Continued ...

Table 19. Concluded.

[b]The scores are weighted sums of the rankings in which "1st" is weighted 4, "2nd" 3, "3rd" 2, and "4th 1, and "Checked by not Ranked" 3. Each respondent, on average, gave three reasons and in cases where no rankings were provided each choice, on average, would rank second; hence, the weighting of 3 for less entries under "Checked but not Ranked".

Table 20. Licenses held by provincial hunting survey respondents, 1975-76 season.

License	Number of Respondents	Percent of Total No. of Respondents[a]
Angling	385	56.6
Bird Game	436	64.1
Migratory Bird	397	58.4
White-tailed Deer	196	28.8
Moose	194	28.5
Mule Deer	193	28.4
Elk	116	17.1
Moose (Zone 1)	44	6.5
Black Bear	38	5.6
Trophy Antelope	12	1.8
Non-Trophy Sheep	8	1.2
Caribou	5	0.7
Grizzly Bear	3	0.4
Camp Wainwright Deer	2	0.3
Archery	2	0.3
Trophy Bighorn Sheep	1	0.2
Antlerless Elk	1	0.2

[a]Based on 680 respondents. There are a total of 1,648 hunting licenses represented here (excluding fishing). Each respondents on averaged held 2.42 different kinds of Alberta hunting licenses during the 1975-76 season.

Table 21. Hunting experience in Alberta during the 1975-76 season of provincial hunting survey respondents, 1975-76 season.

Category	Number of Respondents	Percent of Total Response
Hunted in Alberta at Least Once During the 1975-76 Season	559	82.2
Did Not Hunt in Alberta During the 1975-76 Season	121	17.8
TOTAL	680	100.0

Table 22. Rating of big game hunting experience by provincial hunting survey respondents, 1975-76 season.

Ratings	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Cumulative Adjusted Percent of Response[a]
Not Applicable[b]	233	41.7	n.a	n.a
No Answer	7	1.3	n.a.	n.a.
Very Good	45	8.1	14.1	14.1
Good	76	13.6	23.8	37.9
Fair	91	16.3	28.5	66.4
Poor	79	14.1	24.8	91.2
Very Poor	28	5.0	8.8	100.0
TOTAL	559[c]	100.0	100.0	

[a]The calculations are made with the exclusion of the 240 respondents who did not give ratings (559 - 233 - 7 = 319).

[b]Respondents hunted in the Province, but did not hunt big game.

[c]This figure represents the 580 respondents indicated in the previous tables of Appendix 8.2, less the 121 respondents who did not hunt in Alberta during the 1975-76 season as indicated in Table 21. Consequently, in most of the subsequent tables in Appendix 8.2, the calculations are based on the 559 respondents who actually hunted in Alberta during the 1975-76 season.

Table 23. Rating of upland bird game hunting experience by provincial hunting survey respondents, 1975-76 season.

Ratings	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Cumulative Adjusted Percent of Response[a]
Not Applicable[b]	380	68.0	n.a.	n.a.
No Answer	7	1.3	n.a.	n.a.
Very Good	14	2.5	8.1	8.1
Good	40	7.1	23.3	31.4
Fair	60	10.7	34.9	66.3
Poor	40	7.1	23.3	89.6
Very Poor	18	3.2	10.4	100.0
TOTAL	559	100.0	100.0	

[a]The calculations are made with the exclusion of the 387 respondents who did not give ratings (559 - 380 - 7 = 172).

[b]Respondents who hunted in the Province but did not hunt upland bird game.

Table 24. Rating of waterfowl hunting experience by provincial hunting survey respondents, 1975-76 season.

Ratings	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Cumulative Adjusted Percent of Response[a]
Not Applicable[b]	222	39.7	n.a.	n.a.
No Answer	9	1.6	n.a.	n.a.
Very Good	64	11.5	19.5	19.5
Good	126	22.5	34.4	57.9
Fair	91	16.3	27.7	85.6
Poor	32	5.7	9.8	95.4
Very Poor	15	2.7	4.6	100.0
TOTAL	559	100.0	100.0	

[a]The calculations are made with the exclusion of the 231 respondents who did not give ratings (559 - 222 - 9 = 328).

[b]Respondents who hunted in the Province but did not hunt waterfowl.

Table 25. Travel costs per person per season for big game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Travel Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	233	41.7	n.a.
Not Specified	10	1.8	n.a.
$ 0	4	0.7	1.3
2	2	0.3	0.6
3	1	0.2	0.3
5	7	1.2	2.2
10	12	2.2	3.8
12	1	0.2	0.3
15	8	1.4	2.6
16	1	0.2	0.3
17	1	0.2	0.3
18	1	0.2	0.3
20	40	7.2	12.7
25	21	3.8	6.7
30	27	4.8	8.8
35	5	0.9	1.6
40	19	3.4	6.0
45	3	0.5	1.0
50	51	9.1	16.2
53	1	0.2	0.3
55	1	0.2	0.3
60	8	1.4	2.5
65	2	0.3	0.6
70	2	0.3	0.6
75	4	0.7	1.3
80	7	1.2	2.2
85	1	0.2	0.3
95	2	0.3	0.6
100	43	7.8	13.6

Continued ...

Table 25. Concluded.

Travel Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
$120	2	0.3	0.6
125	3	0.5	1.0
150	11	2.0	3.5
160	1	0.2	0.3
175	1	0.2	0.3
200	16	2.9	5.1
250	2	0.3	0.6
300	1	0.2	0.3
375	1	0.2	0.3
400	1	0.2	0.3
450	1	0.2	0.3
500	1	0.2	0.3
TOTAL	559	100.0	100.0

Mean[b], $65.56; Mode[b], $50.00; Median[b], $50.00; Standard Deviation[b], $67.60.

[a]Includes gasoline, oil, air fare, etc.

[b]The calculations are made with the exclusion of those respondents who did not specify travel costs (559 - 233 - 10 = 316).

[c]Respondents who hunted in the Province but did not hunt big game.

Table 26. Lodging costs per person per season for big game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Lodging Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable	233	41.7	n.a.
Not Specific	10	1.8	n.a.
$ 0	248	44.4	78.6
2	1	0.2	0.3
8	1	0.2	0.3
10	7	1.2	2.2
15	3	0.5	1.0
20	8	1.4	2.5
22	1	0.2	0.3
25	9	1.6	2.9
28	1	0.2	0.3
30	7	1.2	2.2
32	1	0.2	0.3
40	4	0.7	1.3
44	1	0.2	0.3
45	2	0.4	0.6
50	8	1.4	2.5
60	4	0.7	1.3
75	1	0.2	0.3
100	7	1.2	2.2
130	1	0.2	0.3
150	1	0.2	0.3
TOTAL	559	100.0	100.0

Mean[b], $8.83; Mode[b], $0.00; Median[b], $0.00; Standard Deviation, $22.32.

[a] Includes hotels, motels, camping fees, etc.

[b] The calculations are made with the exclusion of those respondents who did not specify lodging costs (559 - 233 - 10 = 316).

[c] Respondents who hunted in the Province but did not hunt big game.

Table 27. Food costs per person per season for big game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Food Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]	Food Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	233	41.7	n.a.	$ 40	14	2.5	4.4
Not Specified	10	1.8	n.a.	45	1	0.2	0.3
$ 0	60	10.7	19.0	50	41	7.3	13.0
1	1	0.2	0.3	53	1	0.2	0.3
3	3	0.5	1.0	60	6	1.1	1.9
5	10	1.8	3.2	70	3	0.5	1.0
6	1	0.2	0.3	75	4	0.7	1.3
7	1	0.2	0.3	80	5	0.9	1.6
8	1	0.2	0.3	90	1	0.2	0.3
10	23	4.1	7.3	100	24	4.2	7.6
12	2	0.4	0.6	120	1	0.2	0.3
15	8	1.4	2.5	125	1	0.2	0.3
20	35	6.2	11.1	130	1	0.2	0.3
22	1	0.2	0.3	150	5	0.9	1.6
25	25	4.4	7.9	160	1	0.2	0.3
28	1	0.2	0.3	169	1	0.2	0.3
30	23	4.1	7.3	198	1	0.2	0.3
35	3	0.5	1.0	200	3	0.5	1.0

continued ...

Table 27. Concluded.

Food Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]	Food Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
$250	1	0.2	0.3	$400	1	0.2	0.3
300	2	0.4	0.6	TOTAL	559	100.0	100.0

Mean[b], $39.86; Mode[b], $0.00; Median[b], $25.00; Standard Deviation[b], $58.98.

[a]Includes restaurant meals and food purchased for hunting trips.

[b]The calculations are made with the exclusion of those respondents who did not specify food costs (559 - 233 - 10 = 316).

[c]Respondents who hunted in the Province but did not hunt big game.

Table 28. Beverage costs per person per season for big game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Cost	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Beverage Cost	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
Not Applicable[b]	233	41.7	n.a.	$ 15	8	1.4	2.5
Not Specified	10	1.8	n.a.	17	1	0.2	0.3
$ 0	157	28.0	49.7.	20	20	3.6	6.3
1	1	0.2	0.3	25	10	1.8	3.2
2	5	0.9	1.6	30	12	2.1	3.8
3	1	0.2	0.3	40	3	0.5	1.0
4	6	1.1	1.9	50	10	1.8	3.2
5	17	3.0	5.4	60	1	0.2	0.3
6	1	0.2	0.3	80	1	0.2	0.3
7	5	0.9	1.6	100	3	0.5	1.0
8	1	0.2	0.3	250	1	0.2	0.3
9	1	0.2	0.3	TOTAL	559	100.0	100.0
10	46	8.2	14.5				
12	5	0.9	1.6				

Mean[a], $9.99; Mode[a], $0.00; Median[a], $1.50; Standard Deviation[a], $20.69.

[a]The calculations are made with the exclusion of the number of respondents who did not specify beverage costs (559 - 233 - 10 = 316).

[b]Respondents who hunted in the Province but did not hunt big game.

Table 29. Rental costs per person per season for big game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Rental Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	233	41.7	n.a.
Not Specified	10	1.8	n.a.
$ 0	307	54.8	97.2
5	1	0.2	0.3
25	1	0.2	0.3
30	3	0.5	1.0
40	1	0.2	0.3
50	1	0.2	0.3
60	1	0.2	0.3
120	1	0.2	0.3
TOTAL	559	100.0	100.0

Mean[b], $1.23; Mode[b], $0.00; Median[b], $0.00; Standard Deviation, $8.89.

[a] Includes rental of hunting equipment, etc.

[b] The calculations are made with the exclusion of the number of respondents who did not specify rental costs (559 - 233 - 10 = 316).

[c] Respondents who hunted in the Province but did not hunt big game.

Table 30. Guide costs per person per season for big game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Guide Cost[a]	Number of Respondents	Percent of Total Response	Ajusted Percent of Response[b]
Not Applicable[c]	233	41.7	n.a.
Not Specified	10	1.8	n.a.
$ 0	311	55.5	98.5
3	1	0.2	0.3
10	1	0.2	0.3
20	1	0.2	0.3
40	1	0.2	0.3
400	1	0.2	0.3
	559	100.0	100.0

Mean[b], $1.50; Mode[b], $0.00; Median[b], $0.00; Standard Deviation, $22.65.

[a] Includes guiding fees, etc.

[b] The calculations are made with the exclusion of the number of respondents who did not specify guide costs (559 - 233 - 10 = 316).

[c] Respondents who hunted in the Province but did not hunt big game.

Table 31. Ammunition costs per person per season for big game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Ammunition Costs	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
Not Applicable[b]	233	41.7	n.a.
Not Specified	10	1.8	n.a.
$ 0	61	10.9	19.3
1	8	1.4	2.5
2	12	2.1	3.8
3	3	0.5	1.0
4	5	0.9	1.6
5	13	2.3	4.1
6	5	0.9	1.6
7	15	2.6	4.8
8	19	3.4	6.0
9	6	1.1	1.9
10	53	9.5	16.8
11	3	0.5	1.0
12	9	1.6	2.9
13	1	0.2	0.3
14	3	0.5	1.0
15	24	4.3	7.6
16	2	0.4	0.6
18	2	0.4	0.6
20	32	5.7	10.1
24	2	0.4	0.6
25	6	1.1	1.9
27	1	0.2	0.3
28	1	0.2	0.3
30	12	2.1	3.8
35	1	0.2	0.3

Continued ...

Table 31. Concluded.

Ammunition Cost	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
$ 40	2	0.4	0.6
42	1	0.2	0.3
45	2	0.4	0.6
50	8	1.4	2.5
80	1	0.2	0.3
100	3	0.5	1.0
TOTAL	559	100.0	100.0

Mean[a], $12.34; Mode[a], $0.00; Median[a], $10.00; Standard Deviation[a], $14.42.

[a]The calculations are made with the exclusion of those respondents who did not specify ammunition costs (559 - 233 - 10 = 316).

[b]Respondents who hunted in the Province but did not hunt big game.

Table 32. Hunting service costs per person per season for big game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Hunting Service Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]	Hunting Service Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	233	41.7	41.7	$ 85	1	0.2	0.3
Not Specified	10	1.8	n.a.	100	3	0.5	1.0
$ 0	283	50.3	89.7	125	3	0.5	1.0
5	1	0.2	0.3	130	1	0.2	0.3
10	1	0.2	0.3	140	1	0.2	0.3
15	3	0.5	1.0	175	1	0.2	0.3
20	5	0.9	1.6	200	1	0.2	0.3
22	1	0.2	0.3	250	1	0.2	0.3
25	1	0.2	0.3	285	1	0.2	0.3
30	2	0.4	0.6	300	1	0.2	0.3
60	1	0.2	0.3	350	1	0.2	0.3
65	1	0.2	0.3	TOTAL	559	100.0	100.0
75	2	0.4	0.6				

Mean[b], $9.91; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $41.38.

[a] Includes packer fees, taxidermy, etc.

[b] The calculations are made with the exclusion of those respondents who did not specify hunting service costs (559 - 233 - 10 = 316).

[c] Respondents who hunted in the Province but did not hunt big game.

Table 33. Miscellaneous costs per person per season for big game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Miscellaneous Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not applicable[c]	233	41.7	n.a.
Not Specified	10	1.8	n.a.
$ 0	299	53.2	94.8
10	3	0.5	1.0
15	1	0.2	0.3
20	1	0.2	0.3
27	1	0.2	0.3
30	1	0.2	0.3
35	1	0.2	0.3
40	1	0.2	0.3
50	1	0.2	0.3
60	1	0.2	0.3
75	2	0.4	0.6
120	1	0.2	0.3
180	1	0.2	0.3
200	1	0.2	0.3
350	1	0.2	0.3
TOTAL	559	100.0	100.0

Mean[b], $4.14; Mode[b], $0.00; Median[b], $0.00; Standard Deviation, $26.78.

[a] Includes hunting equipment repairs, etc.

[b] The calculations are made with the exclusion of those respondents who did not indicate miscellaneous costs (559 - 233 - 10 = 316).

[c] Respondents who hunted in the Province but did not hunt big game.

Table 34. Total variable hunting costs per person per season for big game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]	Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]
Not Applicable[c]	233	n.a	n.a	$ 39	1	0.3	17.1
				40	2	0.6	17.7
Not Specified	9	n.a.	n.a.	42	1	0.3	18.0
				43	1	0.3	18.3
				44	2	0.6	18.9
$ 0	2	0.6	0.6	45	5	1.6	20.5
2	1	0.3	0.9	47	1	0.3	20.8
3	1	0.3	1.2	48	1	0.3	21.1
6	1	0.3	1.5	50	3	1.0	22.2
8	1	0.3	1.8	52	2	0.6	22.8
10	4	1.3	3.1	53	1	0.3	23.1
12	2	0.6	3.7	55	4	1.3	24.4
15	3	1.0	4.7	57	2	0.6	25.0
17	1	0.3	5.0	59	1	0.3	25.3
18	1	0.3	5.4	60	5	1.6	26.9
20	9	2.8	8.2	61	1	0.3	27.2
23	3	1.0	9.2	62	2	0.6	27.8
25	5	1.6	10.8	63	1	0.3	28.1
26	1	0.3	11.1	64	3	1.0	29.2
27	1	0.3	11.4	65	1	0.3	29.5
28	1	0.3	11.7	67	1	0.3	29.8
30	7	2.2	13.9	68	2	0.6	30.4
34	1	0.3	14.2	70	5	1.6	32.0
35	5	1.6	15.8	71	2	0.6	32.6
36	1	0.3	16.2	72	3	1.0	33.6
37	2	0.6	16.8	75	9	2.8	36.4

Continued ...

Table 34. Continued.

Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]	Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]
$ 77	2	0.6	37.0	$140	2	0.6	58.6
78	1	0.3	37.3	141	1	0.3	58.9
79	1	0.3	37.7	145	5	1.6	60.5
80	5	1.6	39.3	150	1	0.3	60.9
85	8	2.5	41.8	153	1	0.3	61.2
86	2	0.6	42.4	155	4	1.3	62.5
87	2	0.6	43.0	158	1	0.3	62.8
88	3	1.0	44.0	160	8	2.5	65.3
89	1	0.3	44.3	162	1	0.3	65.6
90	4	1.3	45.6	164	1	0.3	65.9
95	4	1.3	46.9	165	4	1.3	67.2
96	1	0.3	47.2	167	1	0.3	67.5
97	1	0.3	47.6	168	1	0.3	67.8
98	1	0.3	47.9	170	8	2.5	70.4
100	5	1.6	49.5	175	2	0.6	71.0
102	1	0.3	49.8	178	1	0.3	71.3
104	1	0.3	50.1	180	5	1.6	72.9
105	1	0.3	50.4	182	1	0.3	73.2
107	1	0.3	50.7	185	1	0.3	73.5
109	1	0.3	51.0	187	1	0.3	73.8
110	5	1.6	52.6	189	1	0.3	74.1
111	1	0.3	52.9	190	2	0.6	74.7
115	4	1.3	54.3	192	1	0.3	75.0
117	1	0.3	54.6	194	1	0.3	75.4
119	1	0.3	54.9	195	3	1.0	76.4
120	6	1.9	56.8	196	1	0.3	76.7
125	1	0.3	57.1	199	1	0.3	77.0
127	1	0.3	57.4	200	2	0.6	77.6
135	2	0.6	58.0	201	1	0.3	77.9

Continued ...

Table 34. Continued.

Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]	Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]
$202	1	0.3	78.2	$ 333	1	0.3	90.7
203	1	0.3	78.5	335	1	0.3	91.0
204	1	0.3	78.8	342	1	0.3	91.3
210	2	0.6	79.4	355	1	0.3	91.6
215	1	0.3	79.8	370	1	0.3	91.9
217	2	0.6	80.4	375	3	1.0	93.0
220	1	0.3	80.7	385	2	0.6	93.6
227	1	0.3	81.0	386	1	0.3	93.9
230	2	0.6	81.6	388	1	0.3	94.2
234	1	0.3	81.9	395	1	0.3	94.5
243	1	0.3	82.2	410	2	0.6	95.1
245	4	1.3	83.5	420	1	0.3	95.4
250	1	0.3	83.8	440	1	0.3	95.7
253	1	0.3	84.1	457	1	0.3	96.0
255	1	0.3	84.5	480	2	0.6	96.6
257	1	0.3	84.8	505	1	0.3	97.0
260	1	0.3	85.1	560	1	0.3	97.3
265	1	0.3	85.4	610	1	0.3	97.6
267	2	0.6	86.0	618	1	0.3	97.9
268	1	0.3	86.3	624	1	0.3	98.2
270	2	0.6	86.9	708	1	0.3	98.5
275	1	0.3	87.2	750	1	0.3	98.8
280	2	0.6	87.8	895	1	0.3	99.1
288	1	0.3	88.1	950	1	0.3	99.4
290	1	0.3	88.5	955	1	0.3	99.7
296	1	0.3	88.8	1078	1	0.3	100.0
300	3	1.0	89.8				
305	1	0.3	90.1	TOTAL	559	100.0	100.0
325	1	0.3	90.4				

Continued ...

Table 34. Concluded.

Mean[b], $153.36; Mode[b], $20.00; Median[b], $105.00; Standard Deviation[b], $155.65.

---

[a] Includes travel costs, lodging, food, beverages, rentals, guides, ammunition, hunting services and miscellaneous costs associated with big game hunting activities, but excludes costs for capital items which are used for hunting purposes beyong one season.

[b] The calculations are made with the exclusion of those respondents who did not specify any variable costs associated with big game hunting (559 - 233 - 9 = 317).

[c] Respondents who hunted in the Province but did not hunt big game.

Table 35. Travel costs per person per season for upland bird game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Travel Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]	Travel Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	380	68.0	n.a.	$ 35	3	0.5	1.8
				40	4	0.7	2.4
Not Specified	15	2.7	n.a.	45	2	0.4	1.2
				50	17	3.0	10.4
$ 0	17	3.0	10.4	60	3	0.5	1.8
1	1	0.2	0.6	70	1	0.2	0.6
3	3	0.5	1.8	75	2	0.4	1.2
5	11	2.0	6.7	80	1	0.2	0.6
6	1	0.2	0.6	100	16	2.7	9.8
7	1	0.2	0.6	104	1	0.2	0.6
8	1	0.2	0.6	150	2	0.4	1.2
9	1	0.2	0.6	200	4	0.7	2.4
10	22	3.9	13.4	250	1	0.2	0.6
15	13	2.3	7.9				
20	21	3.8	12.8	TOTAL	559	100.0	100.0
25	7	1.3	4.3				
30	8	1.4	4.9				

Mean[b], $37.10; Mode[b], $10.00; Median[b], $20.00; Standard Deviation[b], $44.74.

[a]Includes gasoline, oil, airfare, etc.

[b]The calculations are made with the exclusion of those respondents who did not specify travel costs (559 - 380 - 15 = 164).

[c]Respondents who hunted in the Province but did not hunt upland bird game.

Table 36. Lodging costs per person per season for upland bird game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Lodging Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	380	68.0	n.a.
Not Specified	15	2.7	n.a.
$ 0	137	24.5	83.5
7	1	0.2	0.6
8	1	0.2	0.6
15	2	0.4	1.2
20	4	0.7	2.4
25	1	0.2	0.6
30	3	0.5	1.8
35	1	0.2	0.6
40	2	0.4	1.2
50	6	1.1	3.7
66	1	0.2	0.6
75	1	0.2	0.6
85	1	0.2	0.6
100	1	0.2	0.6
126	1	0.2	0.6
200	1	0.2	0.6
TOTAL	559	100.0	100.0

Mean[b], $7.97; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $24.39.

[a] Includes hotels, motels, camping fees, etc.

[b] The calculations are made with the exclusion of those respondents who did not specify lodging costs (559 - 380 - 15 = 164).

[c] Respondents who hunted in the Province but did not hunt upland bird game.

Table 37. Food costs per person per season for upland bird game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Food Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]	Food Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	380	68.0	n.a.	$ 30	8	1.4	4.9
				35	1	0.2	0.6
Not Specified	15	2.7	n.a.	36	1	0.2	0.6
				40	1	0.2	0.6
$ 0	57	10.2	34.8	50	6	1.1	3.7
1	1	0.2	0.6	60	3	0.5	1.8
2	3	0.5	1.8	75	2	0.4	1.2
3	2	0.4	1.2	80	2	0.4	1.2
4	3	0.5	1.8	100	5	0.9	3.1
5	17	3.0	10.4	105	1	0.2	0.6
6	1	0.2	0.6	200	1	0.2	0.6
10	15	2.7	9.2	250	1	0.2	0.6
15	8	1.4	4.9				
18	1	0.2	0.6				
20	14	2.5	8.5	TOTAL	559	100.0	100.0
25	10	1.8	6.1				

Mean[b], $19.09; Mode[b], $0.00; Median[b], $5.00; Standard Deviation[b], $33.22.

[a]Includes restaurant meals and food purchased for hunting trips.

[b]The calculations are made with the exclusion of those respondents who did not specify food costs (559 - 380 - 15 = 164).

[c]Respondents who hunted in the Province but did not hunt upland bird game.

Table 38. Beverage costs per person per season for upland bird game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Beverage Costs	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
Not Applicable[b]	380	68.0	n.a.
Not Specified	15	2.7	n.a.
$ 0	97	17.4	59.2
1	7	1.3	4.3
2	5	0.9	3.1
3	2	0.4	1.2
4	3	0.5	1.8
5	11	2.0	6.7
9	1	0.2	0.6
10	15	2.7	9.2
15	2	0.4	1.2
20	7	1.3	4.3
25	3	0.5	1.8
30	1	0.2	0.6
40	1	0.2	0.6
50	4	0.7	2.4
75	1	0.2	0.6
100	3	0.5	1.8
232	1	0.2	0.6
TOTAL	559	100.0	100.0

Mean[a], $8.36; Mode[a], $0.00; Median[a], $0.00; Standard Deviation[a], $24.39.

[a]The calculations are made with the exclusion of those respondents who did not specify beverage costs (559 - 380 - 15 = 164).

[b]Respondents who hunted in the Province but did not hunt upland bird game.

Table 39. Rental costs per person per season for upland bird game hunters incurred by provincial hunting survey respondents, 1975-76 season.

Rental Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	380	68.0	n.a.
Not Specified	15	2.7	n.a.
$ 0	161	28.7	98.2
20	1	0.2	0.6
50	1	0.2	0.6
512	1	0.2	0.6
TOTAL	559	100.0	100.0

Mean[b], $3.55; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $40.04.

[a] Includes rental of hunting equipment, etc.

[b] The calculations are made with the exclusion of those respondents who did not specify rental costs (559 - 380 - 15 = 164).

[c] Respondents who hunted in the Province but did not hunt upland bird game.

Table 40. Guide costs per person per season for upland bird game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Guide Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	380	68.0	n.a.
Not Specified	15	2.7	n.a.
$ 0	161	28.7	98.2
10	1	0.2	0.6
15	1	0.2	0.6
210	1	0.2	0.6
TOTAL	559	100.0	100.0

Mean[b], $1.43; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $16.40.

[a] Includes guiding fees, etc.

[b] The calculations are made with the exclusion of those respondents who did not specify guiding cots (559 - 380 - 15 = 164).

[c] Respondents who hunted in the Province but did not hunt upland bird game.

Table 41. Ammunition Costs per person per season for upland bird game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Ammunition Costs	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Ammunition Cost	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
Not Applicable[b]	380	68.0	n.a.	$ 16	1	0.2	0.6
Not Specified	15	2.7	n.a.	20	17	3.0	10.4
$ 0	30	5.4	18.3	21	1	0.2	0.6
1	4	0.7	2.4	25	5	0.9	3.1
2	6	1.1	3.7	30	2	0.4	1.2
3	2	0.4	1.2	40	3	0.5	1.8
4	4	0.7	2.4	45	1	0.2	0.6
5	27	4.8	16.5	50	4	0.7	2.4
6	3	0.5	1.8	75	2	0.4	1.2
7	2	0.4	1.2	80	1	0.2	0.6
8	5	0.9	3.1	90	1	0.2	0.6
10	28	5.0	17.1	100	2	0.4	1.2
12	3	0.5	1.8	200	1	0.2	0.6
15	9	1.6	5.5	TOTAL	559	100.0	100.0

Mean[a], $14.29; Mode[a], $0.00; Median[a], $8.00; Standard Deviation[a], $23.18.

[a]The calculations are made with the exclusion of those respondents who did not specify ammunition costs (559 - 380 - 15 = 164).

[b]Respondents who hunted in the Province but did not hunt upland bird game.

Table 42. Hunting service costs per person per season for upland bird game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Hunting Service Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Responses[b]
Not Applicable[c]	380	68.0	n.a.
Not Specified	15	2.7	n.a.
T 0	152	27.2	92.7
1	1	0.2	0.6
5	1	0.2	0.6
10	1	0.2	0.6
35	2	0.4	1.2
40	2	0.4	1.2
50	2	0.4	1.2
70	1	0.2	0.6
80	1	0.2	0.6
200	1	0.2	0.6
TOTAL	559	100.0	100.0

Mean[b], $3.76; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $19.09.

[a] Includes packer fees, taxidermy, etc.

[b] The calculations are made with the exclusion of those respondents who did not specify hunting service costs (559 - 380 - 15 = 164).

[c] Respondents who hunted in the Province but did not hunt upland bird game.

Table 43. Miscellaneous costs per person per season for upland bird game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Miscellaneous Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	380	68.0	n.a.
Not Specified	15	2.7	n.a.
$ 0	160	28.5	97.6
26	1	0.2	0.6
35	1	0.2	0.6
250	1	0.2	0.6
555	1	0.2	0.6
TOTAL	559	100.0	100.0

Mean[b], $5.27; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $47.36.

[a] Includes hunting equipment repairs, etc.

[b] The calculations are made with the exclusion of those respondents who did not specify miscellaneous costs (559 - 280 - 15 = 164).

[c] Respondents who hunted in the Province but did not hunt upland bird game.

Table 44. Total variable hunting costs per person per season for upland bird game hunting incurred by provincial hunting survey respondents, 1975-76 season.

Total Variable Costs[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]	Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]
Not Applicable	380	n.a.	n.a.	$ 32	1	0.6	37.1
				35	2	1.2	38.4
Not Specified	15	n.a.	n.a.	38	1	0.6	39.0
				40	8	4.7	43.7
$ 0	6	3.7	3.7	41	1	0.6	44.3
2	1	0.6	4.3	43	1	0.6	44.9
3	1	0.6	4.9	45	3	1.8	46.7
4	1	0.6	5.5	47	1	0.6	47.4
5	3	1.8	7.3	49	2	1.2	48.6
6	1	0.6	8.0	50	5	3.1	51.7
8	2	1.2	9.2	52	1	0.6	52.3
10	4	2.4	11.6	53	1	0.6	52.9
11	3	1.8	13.4	55	6	3.7	56.6
12	2	1.2	14.6	58	1	0.6	57.3
15	8	4.7	19.3	60	1	0.6	57.9
16	2	1.2	20.6	61	1	0.6	58.5
17	1	0.6	21.2	62	1	0.6	59.1
19	3	1.8	23.0	65	2	1.2	60.3
20	6	3.7	26.7	70	2	1.2	61.5
21	2	1.2	27.9	72	1	0.6	62.2
22	1	0.6	28.5	74	1	0.6	62.8
25	5	3.1	31.7	75	3	1.8	64.6
27	1	0.6	32.3	80	4	2.4	67.0
28	3	1.8	34.1	82	1	0.6	67.6
29	1	0.6	34.7	83	1	0.6	68.2
30	3	1.8	36.5	85	3	1.8	70.1

Continued ...

Table 44. Concluded.

Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]	Total Variable Cost	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]
$ 88	1	0.6	70.7	$ 200	1	0.6	87.8
90	3	1.8	72.5	205	1	0.6	88.4
95	1	0.6	73.1	210	1	0.6	89.0
100	1	0.6	73.7	220	1	0.6	89.6
102	1	0.6	74.3	230	1	0.6	90.3
105	1	0.6	75.0	250	2	1.2	91.5
110	2	1.2	76.2	255	1	0.6	92.1
112	1	0.6	76.8	300	1	0.6	92.7
115	1	0.6	77.4	312	1	0.6	93.3
120	2	1.2	78.6	325	2	1.2	94.5
125	1	0.6	79.2	328	1	0.6	95.2
130	2	1.2	80.5	335	1	0.6	95.8
135	2	1.2	81.7	370	1	0.6	96.4
150	2	1.2	82.9	400	2	1.2	97.6
160	2	1.2	84.1	668	1	0.6	98.2
170	2	1.2	85.3	700	1	0.6	98.8
175	1	0.6	85.9	1010	1	0.6	99.4
180	1	0.6	86.6	1590	1	0.6	100.0
195	1	0.6	87.2				
				TOTAL	559	100.0	

Mean[b], $100.82; Mode[b], $15.00; Median[b], $49.90; Standard Deviation[b], $175.36.

[a] Includes travel costs, lodging, food, beverages, rentals, guides, ammunition, hunting services, and miscellaneous costs associated with upland bird game hunting activities, but excludes costs for capital items which are used for hunting purposes beyond one season.

[b] The calculations are made with the exclusion of those respondents who did not specify any variable costs associated with upland bird game hunting (559 - 380 - 15 = 164).

[c] Respondents who hunted in the Province but did not hunt upland bird game.

Table 45. Travel costs per person per season for waterfowl hunting incurred by provincial hunting survey respondents, 1975-76 season.

Travel Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	222	39.7	n.a.
Not Specified	15	2.7	n.a.
$ 0	19	3.4	5.9
2	4	0.7	1.2
3	2	0.4	0.6
4	2	0.4	0.6
5	16	2.7	5.0
7	1	0.2	0.3
8	2	0.4	0.6
10	45	8.1	14.0
12	1	0.2	0.3
15	7	1.3	2.2
18	2	0.4	0.6
20	45	8.1	14.0
22	1	0.2	0.3
25	13	2.3	4.0
30	29	5.2	9.0
35	6	1.1	1.9
40	17	3.0	5.3
45	2	0.4	0.6
50	41	7.3	12.7
60	8	1.4	2.5
70	7	1.3	2.2
74	1	0.2	0.3
75	3	0.5	0.9
77	1	0.2	0.3
80	2	0.4	0.6
90	1	0.2	0.3
100	19	3.4	5.9

Continued ...

Table 45. Concluded.

Travel Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
$140	1	0.2	0.3
150	10	1.8	3.1
180	1	0.2	0.3
200	8	1.4	2.5
300	3	0.5	0.9
400	1	0.2	0.3
700	1	0.2	0.3
TOTAL	559	100.0	100.0

Mean[b], $45.93; Mode[b], $10.00 and $20.00; Median[b], $30.00; Standard Deviation[b], $64.54.

[a] Includes gasoline, oil, air fare, etc.

[b] The calculations are made with the exclusion of those respondents who did not specify travel costs (559 - 222 - 15 = 322).

[c] Respondents who hunted in the Province but did not hunt waterfowl.

Table 46. Lodging costs per person per season for waterfowl hunting incurred by provincial hunting survey respondents, 1975-76 season.

Lodging Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	222	39.7	n.a.
Not Specified	16	2.9	n.a.
$ 0	273	48.8	84.8
8	1	0.2	0.3
10	4	0.7	1.3
15	1	0.2	0.3
20	11	2.0	3.4
25	3	0.5	0.9
26	1	0.2	0.3
30	4	0.7	1.3
35	1	0.2	0.3
36	1	0.2	0.3
40	3	0.5	0.9
50	3	0.5	0.9
60	1	0.2	0.3
75	1	0.2	0.3
80	1	0.2	0.3
100	8	1.4	2.5
137	1	0.2	0.3
200	2	0.4	0.6
510	1	0.2	0.3
TOTAL	559	100.0	100.0

Mean[b], $9.06; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $36.64.

[a]Includes hotels, motels, camping fees, etc.

[b]The calculations are made with the exclusion of those respondents who did not specify lodging costs (559 - 222 - 16 = 321).

[c]Respondents who hunted in the Province but did not hunt waterfowl.

Table 47. Food costs per person per season for waterfowl hunting incurred by provincial hunting survey respondents, 1975-76 season.

Food Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]	Food Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	222	39.7	n.a.	$ 35	1	0.2	0.3
Not Specified	16	2.9	n.a.	36	2	0.4	0.6
$ 0	121	21.7	37.7	40	12	2.2	3.7
2	6	1.1	1.9	50	15	2.7	4.7
3	4	0.7	1.3	55	1	0.2	0.3
4	2	0.4	0.6	60	5	0.9	1.6
5	25	4.5	7.8	70	3	0.5	0.9
6	2	0.4	0.6	75	2	0.4	0.6
10	21	3.8	6.5	80	1	0.2	0.3
12	1	0.2	0.3	100	6	1.1	1.9
13	1	0.2	0.3	120	1	0.2	0.3
15	9	1.6	2.8	150	2	0.4	0.6
20	32	5.7	2.0	200	2	0.4	0.6
25	22	3.9	6.9	205	1	0.2	0.3
30	20	3.6	6.2	300	1	0.2	0.3
				TOTAL	559	100.0	100.0

Mean[b], $19.89; Mode[b], $0.00; Median[b], $8.00; Standard Deviation[b], $33.61.

[a] Includes restaurant meals and food purchased for hunting trips.

[b] The calculations are made with the exclusion of those respondents who did not specify food costs (559 - 222 - 16 = 321).

[c] Respondents who hunted in the Province but did not hunt waterfowl.

Table 48. Beverage costs per person per season for waterfowl hunting incurred by provincial hunting survey respondents, 1975-76 season.

Beverage Cost	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
Not Applicable[b]	222	39.7	n.a.
Not Specified	16	2.9	n.a.
$ 0	185	33.1	57.6
1	5	0.9	1.6
2	9	1.6	2.8
3	5	0.9	1.6
4	3	0.5	0.9
5	22	3.9	6.9
8	3	0.5	0.9
10	31	5.6	9.7
12	2	0.4	0.6
14	1	0.2	0.3
15	10	1.8	3.1
20	18	3.2	5.6
25	5	0.9	1.6
30	6	1.1	1.9
40	2	0.4	0.6
50	10	1.8	3.1
100	3	0.5	0.9
200	1	0.2	0.3
TOTAL	559	100.0	100.0

Mean[a], $7.56; Mode[a], $0.00; Median[a], $0.00; Standard Deviation[a], $17.85.

[a]The calculations are made with the exclusion of those respondents who did not indicate beverage costs (559 - 222 - 16 = 321).

[b]Respondents who hunted in the Province but did not hunt waterfowl.

Table 49. Rental costs per person per season for waterfowl hunting incurred by provincial hunting survey respondents, 1975-76 season.

Rental Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	222	39.7	n.a.
Not Specified	16	2.9	n.a.
$ 0	315	56.4	98.2
20	1	0.2	0.3
40	1	0.2	0.3
75	1	0.2	0.3
200	3	0.5	0.9
TOTAL	559	100.0	100.0

Mean[b], $2.29; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $19.81.

[a] Includes rental of hunting equipment, etc.

[b] The calculations are made with the exclusion of those respondents who did not indicate rental costs (559 - 222 - 16 = 321).

[c] Respondents who hunted in the Province but did not hunt waterfowl.

Table 50. Guide Costs per person per season for waterfowl hunting incurred by provincial hunting survey respondents, 1975-76 season.

Guide Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	222	39.7	n.a.
Not Specified	16	2.9	n.a.
$ 0	318	56.9	99.1
5	1	0.2	0.3
10	1	0.2	0.3
15	1	0.2	0.3
TOTAL	559	100.0	100.0

Mean[b], $0.09; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $1.04.

[a] Includes guiding fees, etc.

[b] The calculations are made with the exclusion of those respondents who did not indicate guiding costs (559 - 222 - 16 - 321).

[c] Respondents who hunted in the Province but did not hunt waterfowl.

Table 51. Ammunition costs per person per season for waterfowl hunting incurred by provincial hunting survey respondents, 1975-76 season.

Ammunition Costs	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
Not Applicable[b]	222	39.7	n.a.
Not Specified	16	2.9	n.a.
$ 0	32	5.7	10.0
1	3	0.5	0.9
2	2	0.4	0.6
3	1	0.2	0.3
4	5	0.9	1.6
5	18	3.2	5.6
6	5	0.9	1.6
7	3	0.5	0.9
8	7	1.3	2.2
9	1	0.2	0.3
10	35	6.3	10.9
12	10	1.8	3.1
13	1	0.2	0.3
15	29	5.2	9.0
16	1	0.2	0.3
20	29	5.2	9.0
24	2	0.4	0.6
25	19	3.4	5.9
30	26	4.7	8.1
34	1	0.2	0.3
35	8	1.4	2.5
40	14	2.5	4.4
42	1	0.2	0.3
45	3	0.5	0.9
50	21	3.8	6.5
55	1	0.2	0.3
60	13	2.3	4.1
70	1	0.2	0.3
75	6	1.1	1.9
85	1	0.2	0.3
90	2	0.4	0.6
99	1	0.2	0.3
100	12	2.2	3.7
150	3	0.5	0.9
180	1	0.2	0.3
200	2	0.4	0.6
440	1	0.2	0.3
TOTAL	559	100.0	100.0

Continued ...

Table 51. Concluded.

Mean[a], $29.73; Mode[a], $10.00; Median[a], $20.00;
Standard Deviation[a], $38.93.

[a]The calculations are made with the exclusion of those respondents who did not indicate ammunition costs (559 - 222 - 16 = 321).

[b]Respondents who hunted in the Province but did not hunt waterfowl.

Table 52. Hunting service costs per person per season for waterfowl hunting by provincial hunting survey respondents, 1975-76 season.

Hunting Service Cost[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	222	39.7	n.a.
Not Specified	16	2.9	n.a.
$ 0	311	55.6	96.9
10	1	0.2	0.3
15	1	0.2	0.3
20	5	0.9	1.6
30	1	0.2	0.3
40	1	0.2	0.3
200	1	0.2	0.3
TOTAL	559	100.0	100.0

Mean[b], $1.23; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $11.75.

[a] Includes packer fees, taxidermy, etc.

[b] The calculations are made with the exclusion of those respondents who did not indicate service costs (559 - 222 - 16 = 321).

[c] Respondents who hunted in the Province but did not hunt waterfowl.

Table 53. Miscellaneous costs per person per season for waterfowl hunting incurred by provincial hunting survey respondents, 1975-76 season.

Miscellaneous Costs[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	222	39.7	n.a.
Not Specified	16	2.7	n.a.
$ 0	315	56.4	98.2
25	1	0.2	0.3
70	1	0.2	0.3
100	1	0.2	0.3
110	1	0.2	0.3
328	1	0.2	0.3
817	1	0.2	0.3
TOTAL	559	100.0	100.0

Mean[b], $4.52; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $49.80.

[a] Includes hunting equipment repairs, etc.

[b] The calculations are made with the exclusion of those respondents who did not indicate miscellaneous costs (559 - 222 - 16 = 321).

[c] Respondents who hunted in the Province but did not hunt waterfowl.

Table 54. Total variable hunting costs per person per season for waterfowl hunting incurred by provincial hunting survey respondents, 1975-76 season.

Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response	Cumulative Percent[b]	Total Variable Cost	Number of Respondents	Adjusted Percent of Response	Cumulative Percent[b]
Not Applicable[c]	222	n.a.	n.a.	$ 39	2	0.6	30.8
Not Specified	16	n.a.	n.a.	40	6	1.9	32.7
$ 0	3	0.9	0.9	45	7	2.2	35.0
2	1	0.3	1.2	47	3	0.9	35.9
3	2	0.6	1.8	48	1	0.3	36.2
6	3	0.9	2.7	50	10	3.1	39.3
8	1	0.3	3.0	53	2	0.6	39.9
10	8	2.5	5.5	55	4	1.3	41.2
11	1	0.3	5.8	57	1	0.3	41.5
12	3	0.9	6.7	60	10	3.1	44.6
14	1	0.3	7.0	61	1	0.3	44.9
15	7	2.2	9.2	63	1	0.3	45.2
16	2	0.6	9.8	65	5	1.6	46.8
18	1	0.3	10.1	66	1	0.3	47.1
19	2	0.6	10.7	67	4	1.3	48.4
20	11	3.4	14.2	70	10	3.1	51.5
21	4	1.3	15.5	72	1	0.3	51.9
25	13	4.1	19.6	73	2	0.6	52.5
26	2	0.6	20.2	74	2	0.6	53.1
27	5	1.6	21.8	75	3	0.9	54.0
28	4	1.3	23.1	76	1	0.3	54.3
30	9	2.8	25.9	80	8	2.5	56.8
31	1	0.3	26.2	83	1	0.3	57.1
32	2	0.6	26.8	85	3	0.9	58.1
34	2	0.6	27.4	87	1	0.3	58.4
35	8	2.5	29.9	90	3	0.9	59.3
37	1	0.3	30.2	95	5	1.6	60.9

Continued ...

Table 54. Continued.

Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]	Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]
$ 99	1	0.3	61.2	$ 240	1	0.3	87.7
100	6	1.9	63.1	245	1	0.3	88.0
105	7	2.2	65.3	250	3	0.9	89.0
110	3	0.9	66.3	260	1	0.3	89.3
115	4	1.3	67.6	270	2	0.6	89.9
120	3	0.9	68.5	280	2	0.6	90.5
125	4	1.3	69.8	285	1	0.3	90.8
127	1	0.3	70.1	295	1	0.3	91.1
130	7	2.2	72.3	300	4	1.3	92.4
134	2	0.6	72.9	310	2	0.6	93.0
135	3	0.9	73.8	320	1	0.3	93.3
140	2	0.6	74.4	321	1	0.3	93.6
145	3	0.9	75.3	325	1	0.3	93.9
150	5	1.6	76.9	348	1	0.3	94.2
158	1	0.3	77.2	355	1	0.3	94.5
160	3	0.9	78.1	375	2	0.6	95.1
165	3	0.9	79.0	380	1	0.3	95.5
170	4	1.3	80.4	385	1	0.3	95.8
175	3	0.9	81.3	390	1	0.3	96.1
180	3	0.9	82.2	395	1	0.3	96.4
194	1	0.3	82.5	450	2	0.6	97.0
195	2	0.6	83.1	452	1	0.3	97.3
200	4	1.3	84.4	480	1	0.3	97.6
220	3	0.9	85.3	502	1	0.3	97.9
225	1	0.3	85.6	525	1	0.3	98.2
227	1	0.3	85.9	550	1	0.3	98.5
230	3	0.9	86.8	800	1	0.3	98.8
231	1	0.3	87.1	830	1	0.3	99.1
235	1	0.3	87.4	1080	1	0.3	99.4

Continued ...

Table 54. Concluded.

Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]	Total Variable Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]
$1100	1	0.3	99.7	$1334	1	0.3	100.0
				TOTAL	559	100.0	100.0

Mean[b], $120.30; Mode[b], $25.00; Median[b], $70.00; Standard Deviation[b], $156.91.

[a]Includes travel costs, lodging, food, beverages, rentals, guides, ammunition, hunting services, and miscellaneous costs associated with waterfowl hunting activities, but excludes costs for capital items which are used for hunting purposes beyong one season.

[b]The calculations are made with the exclusion of those respondents who did not specify any variable costs associated with waterfowl hunting (559 - 222 - 16 = 321).

[c]Respondents who hunted in the Province but did not hunt waterfowl.

Table 55. Capital costs per person per season incurred by provincial hunting survey respondents, 1975-76 season.

Capital Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]	Capital Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent
Not Specified	6	n.a.	n.a.	$ 70	2	0.4	68.3
$ 0	321	58.1	58.1	75	4	0.7	69.0
5	2	0.4	58.5	80	6	1.1	70.1
12	1	0.2	58.7	88	2	0.4	70.4
13	2	0.4	59.1	90	4	0.7	71.1
15	2	0.4	59.5	100	5	0.9	72.0
20	2	0.4	59.8	105	1	0.2	72.2
21	2	0.4	60.2	110	3	0.5	72.7
22	1	0.2	60.4	113	1	0.2	72.9
23	2	0.4	60.8	115	1	0.2	73.0
24	1	0.2	61.0	120	4	0.7	73.7
25	2	0.4	61.4	125	2	0.4	74.1
28	1	0.2	61.5	127	1	0.2	74.3
30	3	0.5	62.0	130	7	1.3	75.6
33	1	0.2	62.2	136	1	0.2	75.8
34	1	0.2	62.4	138	1	0.2	75.9
35	2	0.4	62.8	150	9	1.6	77.5
38	1	0.2	63.0	152	1	0.2	77.7
40	6	1.1	64.0	160	4	0.7	78.4
43	2	0.4	64.4	164	1	0.2	78.6
44	1	0.2	64.6	170	1	0.2	78.8
45	4	0.7	65.3	173	1	0.2	78.9
50	5	0.9	66.2	175	4	0.7	79.6
55	3	0.5	66.7	176	1	0.2	79.8
60	4	0.7	67.3	180	3	0.5	80.3
63	1	0.2	67.5	189	2	0.4	80.7
68	2	0.4	67.9	190	1	0.2	80.9

Continued ...

Table 55. Continued.

Capital Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]	Capital Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]
$ 191	1	0.2	81.0	$ 415	2	0.4	91.0
194	1	0.2	81.2	424	1	0.2	91.2
200	8	1.5	82.7	425	2	0.4	91.5
210	2	0.4	83.1	450	1	0.2	91.7
215	1	0.2	83.3	470	1	0.2	91.9
220	3	0.5	83.8	475	1	0.2	92.1
225	2	0.4	84.1	480	1	0.2	92.3
230	1	0.2	84.3	500	3	0.5	92.8
238	1	0.2	84.5	520	1	0.2	92.9
240	1	0.2	84.7	530	1	0.2	93.1
241	1	0.2	84.9	550	1	0.2	93.3
245	1	0.2	85.1	594	1	0.2	93.5
250	3	0.5	85.5	600	3	0.5	94.0
260	3	0.5	86.0	610	1	0.2	94.2
265	1	0.2	86.2	650	1	0.2	94.3
269	1	0.2	86.4	700	2	0.4	94.7
271	1	0.2	86.6	750	1	0.2	94.9
275	1	0.2	86.8	880	1	0.2	95.1
279	1	0.2	86.9	900	2	0.4	95.5
289	1	0.2	87.1	1050	2	0.4	95.9
290	3	0.5	87.6	1170	1	0.2	96.0
300	9	1.6	89.2	1400	1	0.2	96.2
310	1	0.2	89.4	1550	1	0.2	96.4
350	1	0.2	89.6	1570	1	0.2	96.6
370	1	0.2	89.7	1575	1	0.2	96.8
395	1	0.2	89.9	1750	1	0.2	97.0
400	3	0.5	90.4	1765	1	0.2	97.2
410	1	0.2	90.6	1850	1	0.2	97.4

Continued ...

Table 55. Concluded.

Capital Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]	Capital Cost[a]	Number of Respondents	Adjusted Percent of Response[b]	Cumulative Percent[b]
$1900	2	0.4	97.8	$3475	1	0.2	99.2
1928	1	0.2	98.0	4200	1	0.2	99.4
2000	1	0.2	98.2	6000	1	0.2	99.6
2065	1	0.2	98.4	8500	1	0.2	99.8
2500	2	0.4	98.8	8540	1	0.2	100.0
3200	1	0.2	99.0				
				TOTAL	559	100.0	

Mean[b], $189.87; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $700.52.

[a]Includes only that portion of 1975-76 season capital purchases which are used for hunting purposes only; e.g., for a vehicle purchased at $5,000 and used 40 percent of the time for hunting purposes, the capital cost indicated in this table would be $2,000 (see Table 56). Other items include hunting equipment, rifles, shotguns, camping equipment, clothing, and other items used for hunting from year to year.

[b]The calculations are made with the exclusion of the number of respondents who did not specify their capital hunting costs (559 - 6 = 553).

Table 56. Itemized capital purchases for provincial hunting survey respondents during the 1975-76 season used in part or in whole for hunting purposes.

Items Purchased	Number of Respondents[a]	Percent of Total Respondents[b]
Ammunition	13	2.3
Arhcery Equipment	2	0.4
Arrows	4	0.7
Axe	1	0.2
Binoculars	5	0.9
Boats	6	1.1
Boat Motors	2	0.4
Boots	1	0.2
Bows	3	0.5
Bullet Vest	1	0.2
Camera	1	0.2
Campers	6	1.1
Camping Equipment	3	0.5
Canoes	4	0.7
Clothing	13	2.3
Coats	3	0.5
Compass	1	0.2
Cooler	1	0.2
Decoys	7	1.3
Dog	1	0.2
Gun Case	1	0.2
Hipwaders	4	0.7
Horses	3	0.5
Hunting Equipment	4	0.7
Jeeps	4	0.7
Knives	5	0.9
Polychoke for Shotgun	1	0.2
Reloading Kits	10	1.8

Continued ...

Table 56. Concluded.

Items Purchased	Number of Respondents[a]	Percent of Total Respondents[b]
Repairs	1	0.2
Rifles	95	17.0
Riflescopes	17	3.0
Saddle	1	0.2
Shotguns	78	14.0
Sleeping Bags	5	0.9
Spotting Scope	1	0.2
Snowmobiles	3	0.5
Tents	7	1.3
Tent Heater	1	0.2
Trailers	2	0.4
Trucks	16	2.9
Truck Canopy	1	0.2
Vehicle, unspecified	1	0.2
Winch and Bumper	1	0.2
Winch Cable	1	0.2

[a]Most respondents who made capital purchases during the 1975-76 season purchased more than one item, thus appearing in the "number of respondents" column more than once. There were a total of 680 respondents, 121 of whom did not hunt during the season, leaving a total of 559 active hunters, 238 of whom made capital purchases. One of the 238 purchases did not specify items purchased and is therefore excluded. Hence, the items shown in this table represent the purchases of 237 respondents. The portion of capital expenditures allocated to capital hunting costs are summarized in Table 55.

[b]Percentage figures are based on a total of 559 respondents.

Table 57. Extramarket benefits per person per day from big game hunting received by provincial hunting survey respondents, 1975-76 season.

Extramarket Benefit per Day[a]	Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	233	41.7	n.a.
No Answer	51	9.1	n.a.
"Nonsensical Question"	2	0.4	n.a.
Cannot Answer	20	3.6	n.a.
Priceless Benefit	12	2.2	n.a.
$ 0	24	4.3	10.0
1	2	0.4	0.8
2	3	0.5	1.2
3	3	0.5	1.2
4	2	0.4	0.8
5	12	2.2	5.0
6	3	0.5	1.2
8	1	0.2	0.4
10	47	8.4	19.5
12	4	0.7	1.7
16	11	2.0	4.6
20	45	8.1	18.7
22	3	0.5	1.2
24	4	0.7	1.7
26	4	0.7	1.7
28	1	0.2	0.4
30	48	8.6	19.9
40	2	0.4	0.8
50	8	1.4	3.3
60	1	0.2	0.4
75	1	0.2	0.4
80	2	0.4	0.8
100	5	0.9	2.1

Continued ...

Table 57. Concluded

Extramarket Benefit per Day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
$150	1	0.2	0.4
500	1	0.2	0.4
550	1	0.2	0.4
700	1	0.2	0.4
997	1	0.2	0.4
TOTAL	559	100.0	100.0

Mean[b], $31.58; Mode[b], $30.00; Median[b], $20.00;
Standard Deviation[b], $90.89.

[a]Extramarket benefit is the value of a days' hunting in Alberta by a respondent, over and above what is spent on travel and other hunting expenses.

[b]Calculations are made with the exclusion of those respondents who did not provide dollar amounts of extramarket benefits (559 - 233 - 51 - 2 - 20 - 12 = 241).

[c]Respondents who hunted in the Province but did not hunt big game.

Table 58. Extramarket benefits per person per day from upland bird game hunting received by provincial hunting survey respondents, 1975-76 season.

Extramarket Benefit per Day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	380	68.0	n.a.
No Answer	32	5.7	n.a.
Cannot Answer	12	2.2	n.a.
Priceless Benefit	5	0.9	n.a.
$ 0	20	3.6	15.4
1	3	0.5	2.3
2	1	0.2	0.8
3	2	0.4	1.5
5	14	2.5	10.8
7	3	0.5	2.3
9	1	0.2	0.8
10	28	5.0	21.5
12	2	0.4	1.5
16	4	0.7	3.1
20	17	3.0	13.1
30	22	3.9	16.9
45	1	0.2	0.8
50	6	1.1	4.6
75	1	0.2	0.8
100	2	0.4	1.5
150	1	0.2	0.8
230	1	0.2	0.8
231	1	0.2	0.8
TOTAL	559	100.0	100.0

Mean[b], $20.85; Mode[b], $10.00; Median[b], $10.00;
Standard Deviation[b], $33.54.

[a]Extramarket benefit is the value of a days' hunting in Alberta by a respondent, over and above what is spent on travel and other hunting expenses.

[b]Calculations are made with the exclusion of those respondents who did not provide dollar amounts of extramarket benefits (559 - 380 - 32 - 12 - 5 = 130).

[c]Respondents who hunted in the Province but did not hunt upland bird game.

Table 59. Extramarket benefits per person per day from waterfowl hunting received by provincial hunting survey respondents, 1975-76 season.

Extramarket Benefit per Day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	222	39.7	n.a.
No Answer	64	11.5	n.a.
Cannot Answer	16	2.7	n.a.
Priceless Benefit	8	1.4	n.a.
$ 0	31	5.6	12.5
1	2	0.4	0.8
2	2	0.4	0.8
3	1	0.2	0.4
4	1	0.2	0.4
5	23	4.1	9.2
6	5	0.9	2.0
7	3	0.5	1.2
8	6	1.1	2.4
9	3	0.5	1.2
10	49	8.8	19.7
12	7	1.3	2.8
14	2	0.4	0.8
16	8	1.4	3.2
18	2	0.4	0.8
20	33	5.9	13.3
22	1	0.2	0.4
24	4	0.7	1.6
26	3	0.5	1.2
28	2	0.4	0.8
30	38	6.8	15.3
40	1	0.2	0.4
45	2	0.4	0.8
50	6	1.1	2.4
52	1	0.2	0.4
60	2	0.4	0.8
75	2	0.4	0.8
100	5	0.9	2.0
156	1	0.2	0.4
248	1	0.2	0.4
300	1	0.2	0.4
350	1	0.2	0.4
TOTAL	559	100.0	100.0

Mean[b], $21.60; Mode[b], $10.00; Median[b], $10.00;
Standard Deviation[b], $36.86.

Continued.

Table 59. Concluded.

[a]Extramarket benefit is the value of a days' hunting in Alberta to a respondent, over and above what is spent on travel and other hunting expenses.

[b]Calculations are made with the exclusion of those respondents who did not provide dollar amounts of extramarket benefits (559 - 222 - 64 - 16 - 8 = 249).

[c]Respondents who hunted in the Province but did not hunt waterfowl.

Table 60. Compensation benefits required to stop hunting per person per year for provincial hunting survey respondents, 1975-76 season.

Compensation Benefits per Year[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
No Answer	81	14.5	n.a.
"Nonsensical Question"	4	0.7	n.a.
Cannot Answer	30	5.4	n.a.
Priceless Benefit	48	8.6	n.a.
$ 0	86	15.4	21.7
1	2	0.4	0.5
2	1	0.2	0.3
3	1	0.2	0.3
5	1	0.2	0.3
10	2	0.4	0.5
20	6	1.1	1.5
30	4	0.7	1.0
40	2	0.4	0.5
50	16	2.7	4.0
80	1	0.2	0.3
100	44	7.9	11.1
150	2	0.4	0.5
200	28	5.0	7.1
241	1	0.2	0.3
300	21	3.8	5.3
350	1	0.2	0.3
400	5	0.9	1.3
500	60	10.7	15.2
600	8	1.4	2.0
700	6	1.1	1.5
800	5	0.9	1.3
900	44	7.9	11.1

Continued ...

Table 60. Concluded.

Compensation Benefits per Year[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
$1000	26	4.7	6.6
1200	1	0.2	0.3
1500	1	0.2	0.3
2000	6	1.1	1.5
2500	1	0.2	0.3
3000	4	0.7	1.0
5000	7	1.3	1.8
8889	1	0.2	0.3
9100	1	0.2	0.3
9993	1	0.2	0.3
	559	100.0	100.0

Mean[b], $558.60; Mode[b], $0.00; Median[b], $300.00;
Standard Deviation[b], $1,093.20.

[a]The amounts shown in this column represent the dollar amount a respondent would have to be paid not to hunt in Alberta for one year.

[b]Calculations are made with the exclusion of the number of respondents who did not provide dollar amounts of compensation benefits (559 - 81 - 4 - 30 - 48 = 396).

Table 61. Hunting activities of provincial hunting survey respondents, 1975-76 season.

Item	Mean[a]	Mode	Median	Standard Deviation	Range
Total Days Hunted per Person	7.13	3.00	5.06	6.58	0.50- 47.00
Total No. of Trips per Person	4.50	1.00	3.05	4.77	1.00- 42.00
No. of Days Hunted per Trip per Person	1.58	3.00	1.66	1.38	0.50- 15.67
Party Size per Trip per Person	2.67	2.00	2.43	1.51	1.00- 29.00
Total Distance Travelled per Person km(miles)	931.53(578.48)	483.09(300.00)	642.64(399.08)	944.83(586.74)	0.00-7,987.12 (0.00-4,960.00)
Distance Travelled per Trip per Person km(miles)	207.00(128.55)	483.09(300.00)	210.71(130.85)	264.70(164.38)	0.00-2,254.43 (0.00-1,400.00)

[a]Among the 559 respondents who hunted during the 1975-76 season, 16 did not specify hunting activity information. Consequently the calculations presented here are based on a sample size of 543 respondents.

Table 62. Big game hunter activity and success by species of provincial hunting survey respondents, 1975-76 season.

Species	Number of Respondents	Number of Times Sought	Number of Days	Animals Taken	No. Taken per Person	No. of Days per Person
Big Game, Unspecified	5	24	48.5	0	0.00	9.70
Antelope	11	13	20.5	9	0.82	1.86
Bear, Unspecified	6	25	34.5	1	0.17	5.75
Black Bear	11	28	59.0	2	0.18	5.36
Caribou	1	2	5.0	0	0.00	5.00
Deer, Unspecified	40	141	201.0	5	0.13	5.03
Mule Deer	87	225	393.0	35	0.40	4.52
White-Tailed Deer	100	283	487.0	24	0.24	4.87
Elk	90	270	520.5	13	0.14	5.78
Moose	155	329	1000.2	27	0.17	6.45
Bighorn Sheep	6	11	28.0	0	0.00	4.67
TOTAL[a]	310	945	1971.0	116		
AVERAGE					0.37	6.36

[a]The totals for number of respondents, number of times sought, and number of days are more than corresponding totals presented since some hunters sought more than one species per trip. Among the 559 respondents who hunted in the Province, 16 did not specify hunting activity information. Among the 543 sample respondents, 310 persons hunted big game on 945 trips totalling 1,971 hunter days during which 116 animals were taken.

Table 63. Upland bird game hunter activity and success by species of provincial hunting survey respondents, 1975-76 season.

Species	Number of Respondents	Number of Times Sought	Number of Days	Birds Taken	No. Taken per Person	No. of Days per Person
Upland Bird Game, Unspecified	27	64	107.5	78	2.89	3.98
Grouse, Unspecified	57	131	198.5	365	6.50	3.48
Ruffed Grouse	33	89	149.0	295	8.94	4.52
Sage Grouse	2	2	6.0	4	2.00	3.00
Sharptailed Grouse	15	23	45.5	96	6.40	3.03
Spruce Grouse	5	6	17.0	22	4.40	3.40
Partridge	12	23	38.5	93	7.75	3.21
Pheasant	70	155	229.4	278	3.97	3.28
Ptarmigan, Unspecified	1	1	1.0	2	2.00	1.00
TOTAL[a]	163	420	674.0	1,233		
AVERAGE					7.56	4.13

[a]The totals for number of respondents, number of times sought, and number of days are more than corresponding totals presented since some hunters sought more than one species per trip. Among the 559 respondents who hunted in the Province, 16 did not specify hunting activity information. Among the 543 sample respondents, 163 persons hunted upland bird game on 420 trips, totalling 674 hunter days during which 1,233 birds were taken.

Table 64. Migratory bird game hunter activity and success by species of provincial hunting survey respondents, 1975-76 season.

Species	Number of Respondents	Number of Times Sought	Number of Days	Waterfowl Taken	No. Taken per Person	No. of Days per Person
Migratory Bird Game, Unspecified	1	1	1.0	0	0.00	1.00
Duck, Unspecified	304	1267	1552.0	4871	16.02	5.11
Mallard Duck	20	35	46.0	294	29.40	4.60
Goose, Unspecified	155	625	799.5	512	3.30	5.16
Canada Goose	4	5	7.0	14	3.50	1.75
Snow Goose	1	1	1.0	2	2.00	1.00
TOTAL[a]	321	1,359	1,712.5	5,693		
AVERAGE					17.74	5.33

[a]The totals for number of respondents, number of times sought, and number of days are more than corresponding totals presented since some hunters sought more than one species per trip. Among the 559 respondents who hunted in the Province, 16 did not specify hunting activity information. Among the 543 sample respondents, 321 persons hunted waterfowl on 1,359 trips, totalling 1,712.5 hunter days during which 5,693 waterfowl were taken.

Table 65. Big game hunting activity by Wildlife Management Unit (WMU) of provincial hunting survey respondents, 1975-76 season.

WMU[a]	Respondents[b]	Total Days Hunted per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Animals Taken per Person
						km	miles	km	miles	
102	2	2.75	1.00	2.75	2.00	120.8	75.0	120.8	75.0	1.00
104	3	2.17	1.00	2.17	3.67	558.3	346.7	558.3	346.7	0.67
106	1	1.00	1.00	1.00	3.00	128.8	80.0	128.8	80.0	0.00
108	5	4.90	4.40	1.11	2.32	558.4	346.8	126.8	78.8	0.60
110	12	4.08	3.17	1.29	2.68	680.3	422.5	214.8	133.4	0.42
112	1	5.00	5.00	1.00	1.00	309.2	192.0	61.5	38.4	0.00
114	2	1.00	1.00	1.00	3.00	818.0	508.0	818.0	508.0	0.50
116	3	1.67	1.00	1.67	2.67	61.2	38.0	61.2	38.4	0.33
118	1	5.00	3.00	1.67	3.00	386.5	240.0	128.8	80.0	1.00
120	2	4.50	3.00	1.50	2.33	708.5	440.0	236.2	146.7	0.00
126	1	2.00	1.00	2.00	2.00	966.2	600.0	966.2	600.0	1.00
128	1	5.00	5.00	1.00	3.00	241.5	150.0	48.3	30.0	0.00
130	1	1.00	1.00	1.00	1.00	483.1	300.0	483.1	300.0	1.00
132	5	1.60	1.40	1.14	2.57	267.3	166.0	191.0	118.6	0.40
140	2	5.50	1.00	5.50	3.50	724.6	450.0	724.6	450.0	0.50
142	3	2.33	1.00	2.33	3.67	322.1	200.0	322.1	200.0	0.33
148	1	1.00	1.00	1.00	4.00	64.4	40.0	64.4	40.0	0.00
150	3	1.33	1.00	1.33	2.33	751.5	466.7	751.5	466.7	1.00
152	1	4.00	2.00	2.00	4.00	579.7	360.0	289.9	180.0	1.00
156	2	9.50	1.50	6.33	2.00	676.3	420.0	450.9	280.0	0.50
158	7	4.29	3.86	1.11	2.52	1012.7	628.9	262.5	163.0	0.57
160	1	2.00	2.00	1.00	1.50	837.4	520.0	418.7	260.0	0.00
162	1	1.00	1.00	1.00	4.00	112.7	70.0	112.7	70.0	0.00
164	1	3.00	3.00	1.00	3.00	48.3	30.0	48.3	10.0	1.00
166	3	4.50	2.33	1.93	2.57	552.8	343.3	236.9	147.1	0.67

Continued ...

Table 65. Continued.

WMU[a]	Number of Respon-dents[b]	Total Days Hunted per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Animals Taken per Person
						km	miles	km	miles	
200	2	2.50	2.50	1.00	2.40	734.3	456.0	293.7	182.4	0.00
202	2	2.75	1.00	2.75	4.50	289.9	180.0	289.9	180.0	0.00
204	1	10.00	10.00	1.00	2.00	644.1	400.0	64.4	40.0	1.00
206	1	9.00	9.00	1.00	2.00	29.0	18.0	3.2	2.0	2.00
212	9	4.39	2.78	1.58	2.72	535.3	332.4	192.8	119.7	0.11
214	3	3.33	1.00	3.33	2.67	150.2	93.3	150.2	93.3	0.67
216	1	1.00	1.00	1.00	2.00	128.8	80.0	128.8	80.0	0.00
220	9	2.72	1.67	1.63	1.93	200.3	124.4	120.3	74.7	0.56
222	2	7.50	1.50	5.00	2.67	789.0	490.0	526.1	326.7	1.50
224	3	3.17	2.33	1.36	2.71	665.6	413.3	285.2	177.1	0.00
226	1	3.00	3.00	1.00	3.00	48.3	30.0	16.1	10.0	0.00
228	2	4.00	4.00	1.00	2.00	644.1	400.0	161.0	100.0	0.00
230	1	3.00	3.00	1.00	2.00	193.2	120.0	64.4	40.0	1.00
233	4	2.75	1.25	2.20	5.00	293.9	182.5	235.1	146.0	0.50
236	3	5.33	4.00	1.33	2.25	822.4	510.7	205.6	127.7	0.33
238	5	4.60	3.40	1.35	2.12	354.3	220.0	104.2	64.7	0.20
240	1	1.00	1.00	1.00	1.00	193.2	120.0	193.2	120.0	0.00
242	1	4.00	4.00	1.00	3.00	386.5	240.0	96.6	60.0	0.00
244	2	4.50	3.50	1.29	1.57	273.8	170.0	78.3	48.6	0.50
248	1	5.00	1.00	5.00	2.00	644.1	400.0	644.1	400.0	1.00
256	2	1.50	1.00	1.50	2.50	241.5	150.0	241.5	150.0	0.00
258	3	3.00	2.67	1.13	2.50	425.1	264.0	159.4	99.0	0.00
300	4	2.25	1.50	1.50	2.50	430.8	267.5	287.1	178.3	0.75
302	10	7.95	6.50	1.22	1.54	967.1	600.6	148.8	92.4	0.20
304	16	4.28	1.75	2.45	3.29	444.4	276.0	253.9	157.7	0.38
310	16	2.06	1.19	1.74	2.95	373.4	231.9	314.5	195.3	0.19
312	13	4.23	1.54	2.75	2.35	336.9	209.2	219.0	136.0	0.23

Continued ...

Table 65. Continued.

WMU[a]	Number of Respon-dents[b]	Total Days Hunted per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Animals Taken per Person
						km	miles	km	miles	
314	3	1.50	1.67	0.90	2.00	267.3	166.0	160.4	99.6	0.00
318	1	1.00	1.00	1.00	2.00	322.1	200.0	322.1	200.0	0.00
320	10	3.15	1.30	2.42	2.69	347.2	215.6	267.1	165.9	0.10
322	20	2.53	1.35	1.87	2.85	463.1	287.6	343.0	213.0	0.15
324	1	1.00	1.00	1.00	2.00	289.9	180.0	289.9	180.0	0.00
328	7	4.64	2.00	2.32	2.29	731.6	454.3	365.7	227.1	0.14
330	2	3.50	1.50	2.33	3.33	966.2	600.0	644.1	400.0	0.00
332	1	2.00	1.00	2.00	3.00	354.3	220.0	354.3	220.0	0.00
338	1	6.00	1.00	6.00	3.00	483.1	300.0	483.1	300.0	0.00
340	22	4.91	1.77	2.77	2.36	566.2	351.6	319.3	198.3	0.14
342	6	4.17	1.33	3.13	2.25	708.5	440.0	531.0	330.0	0.17
344	1	4.00	1.00	4.00	5.00	644.1	400.0	644.1	400.0	1.00
346	3	3.00	1.00	3.00	3.00	654.9	406.7	654.9	406.7	0.33
348	5	3.60	2.40	1.50	2.08	566.8	352.0	236.2	146.7	0.20
350	19	4.61	1.58	2.92	2.10	527.2	327.4	333.8	207.3	0.21
351	9	4.89	1.44	3.38	3.46	617.2	383.3	427.4	265.4	0.11
352	13	4.38	1.54	2.85	2.50	748.1	464.6	486.3	302.0	0.15
354	2	2.75	2.00	1.38	2.75	547.5	340.0	273.8	170.0	0.00
356	1	5.00	1.00	5.00	2.00	483.1	300.0	483.1	300.0	0.00
358	25	5.60	2.68	2.09	2.57	665.9	413.5	248.5	154.3	0.20
400	4	2.50	1.50	1.67	2.33	338.2	210.0	225.4	140.0	0.00
402	3	2.67	1.00	2.67	2.00	692.4	430.0	692.4	430.0	0.00
404	2	6.50	1.00	6.50	3.00	273.8	170.0	273.8	170.0	0.00
406	3	1.83	1.00	1.83	2.00	209.3	130.0	209.3	130.0	0.33
408	9	4.11	1.67	2.47	2.87	735.4	456.7	434.8	274.0	0.22
410	1	1.00	1.00	1.00	2.00	225.4	140.0	225.4	140.0	0.00
418	1	3.00	3.00	1.00	2.00	1256.0	780.0	418.7	260.0	0.00
426	1	3.00	1.00	3.00	8.00	241.5	150.0	241.5	150.0	0.00
429	2	5.00	1.00	5.00	3.00	483.1	300.0	483.1	300.0	0.00
438	15	4.77	1.73	2.75	2.81	575.0	357.1	331.7	206.0	0.07
440	12	3.92	1.92	2.04	2.09	825.3	512.5	430.6	267.4	0.00

Continued ...

Table 65. Concluded.

WMU[a]	Number of Respondents[b]	Total Days Hunter per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Animals Taken per Person
						km	miles	km	miles	
442	1	6.00	1.00	6.00	5.00	322.1	200.0	322.1	200.0	0.00
500	1	3.00	1.00	3.00	2.00	128.8	80.0	128.8	80.0	0.00
506	1	1.00	1.00	1.00	1.00	322.1	200.0	322.1	200.0	0.00
508	14	3.68	1.21	3.03	2.06	445.9	276.9	367.1	228.0	0.00
510	4	9.00	8.50	1.06	2.38	217.4	135.0	25.6	15.9	0.00
511	7	9.36	1.86	5.04	2.38	691.5	429.4	372.3	231.2	0.14
512	14	4.50	2.21	2.03	2.32	571.7	355.0	258.1	160.3	0.14
514	4	4.75	1.50	3.17	2.50	269.7	167.5	179.8	111.7	0.00
516	2	3.50	2.50	1.40	2.80	315.6	196.0	126.2	78.4	0.50
518	8	5.13	1.25	4.10	2.90	654.3	406.3	523.3	325.0	0.13
520	1	10.00	5.00	2.00	2.60	563.6	350.0	112.7	70.0	1.00
522	6	2.75	1.50	1.83	2.56	848.1	526.7	565.4	351.1	0.83
524	6	3.83	1.17	3.29	3.43	434.8	270.0	372.6	231.4	0.67
526	4	2.38	1.00	2.38	2.00	857.5	532.5	857.5	532.5	0.25
Not Specified	6	3.00	1.33	2.25	2.50	389.2	241.7	291.9	181.3	0.17
Province Wide[c]	310	6.36	3.05	2.09	2.39	794.2	493.2	260.4	161.7	0.37

[a]Wildlife Management Unit locations for the Province are given in Figure 2.

[b]Each of the 310 respondents, on average, hunted big game in 1.5 Wildlife Management Units.

[c]The figures, reading across, pertain to the entire Province.

Table 66. Upland bird game hunting activity by Wildlife Management Unit of provincial hunting survey respondents, 1975-76 season.

WMU[a]	Number of Respondents[b]	Total Days Hunter per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Birds Taken per Person
						km	miles	km	miles	
102	1	2.00	1.00	2.00	2.00	161.0	100.0	161.0	100.0	2.00
104	1	1.00	1.00	1.00	2.00	16.1	10.0	16.1	10.0	0.00
108	6	5.58	3.50	1.60	3.71	546.4	339.3	156.2	97.0	5.50
112	1	2.00	1.00	2.00	2.00	483.1	300.0	483.1	300.0	5.00
114	7	2.71	2.14	1.27	2.53	525.9	326.6	245.4	152.4	2.29
116	1	1.00	1.00	1.00	2.00	48.3	30.0	48.3	30.0	1.00
128	7	1.64	1.14	1.44	3.00	393.0	244.3	344.3	213.8	3.00
130	9	3.11	2.56	1.22	2.22	544.0	337.8	212.9	132.2	7.33
132	5	3.80	2.40	1.58	2.50	328.5	204.0	136.9	85.0	9.80
136	2	6.25	3.00	2.08	2.17	748.8	465.0	249.6	155.0	10.50
140	1	1.00	1.00	1.00	2.00	48.3	30.0	48.3	30.0	1.00
142	19	3.79	2.16	1.76	3.10	568.9	353.3	263.6	163.7	6.95
144	1	7.00	1.00	7.00	3.00	418.7	260.0	418.7	260.0	3.00
148	2	5.00	2.00	2.50	3.75	1030.6	640.0	515.3	320.0	20.00
150	2	4.50	1.00	4.50	3.50	869.6	540.0	869.6	540.0	8.00
152	3	1.33	1.33	1.00	2.25	483.1	300.0	362.3	225.0	3.00
156	15	2.90	1.87	1.55	2.04	365.1	226.7	195.5	121.4	8.07
158	3	1.67	1.00	1.67	2.33	338.2	210.0	338.2	210.0	4.67
160	1	1.00	1.00	1.00	4.00	418.7	260.0	418.7	260.0	0.00
162	2	2.50	1.00	2.50	3.50	547.5	340.0	547.5	340.0	5.50
164	1	5.00	1.00	5.00	2.00	772.9	480.0	772.9	480.0	9.00
166	2	1.50	1.00	1.50	3.50	346.2	215.0	346.2	215.0	4.00
200	2	4.75	1.00	4.75	3.00	636.1	395.0	636.1	395.0	6.50
204	2	2.50	1.00	2.50	4.00	289.9	180.0	289.8	180.0	6.00
206	6	4.50	1.00	4.50	3.33	389.7	242.0	389.7	242.0	2.83
210	4	1.00	1.25	0.80	2.20	149.0	92.5	119.2	74.0	0.25
212	6	3.42	3.33	1.03	2.20	316.7	196.7	95.0	59.0	3.33

Continued ...

Table 66. Continued.

WMU[a]	Number of Respondents	Total Days Hunted per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per person		Distance Travelled per Trip per person		Total Birds Taken per Person
						km	miles	km	miles	
214	2	0.75	1.00	0.75	2.50	241.5	150.0	241.5	150.0	3.50
216	2	0.75	1.00	0.75	2.00	53.1	33.0	53.1	33.0	2.00
220	1	1.00	1.00	1.00	2.00	322.1	200.0	322.1	200.0	1.00
221	1	4.00	4.00	1.00	1.00	38.6	24.0	9.7	6.0	0.00
224	1	2.00	1.00	2.00	2.00	450.9	280.0	450.9	280.0	1.00
226	1	2.50	1.00	2.50	3.00	322.1	200.0	322.1	200.0	4.00
228	2	5.50	1.00	5.50	2.00	531.4	330.0	531.4	330.0	1.00
233	2	2.00	1.00	2.00	2.00	547.5	340.0	547.5	340.0	3.00
236	2	5.50	5.50	1.00	2.00	966.2	600.0	175.7	109.1	4.00
238	4	2.00	1.25	1.60	3.00	378.4	235.0	302.7	188.0	8.50
242	4	2.00	1.50	1.33	2.33	354.3	220.0	236.2	146.7	3.00
244	1	1.00	1.00	1.00	1.00	96.6	60.0	96.6	60.0	0.00
248	1	2.00	2.00	1.00	1.00	128.8	80.0	144.9	90.0	0.00
250	2	0.50	1.00	0.50	2.50	112.7	70.0	112.7	70.0	3.50
252	3	1.67	1.33	1.25	2.25	214.7	133.3	161.0	100.0	6.33
256	2	1.00	1.00	1.00	2.00	209.3	130.0	209.3	130.0	1.00
258	3	2.33	1.00	2.33	2.00	515.3	320.0	515.3	320.0	3.00
260	2	2.50	2.50	1.00	2.00	467.0	290.0	186.8	116.0	7.00
300	1	2.00	2.00	1.00	1.00	96.6	60.0	48.3	30.0	6.00
302	1	1.00	1.00	1.00	1.00	9.7	6.0	9.7	6.0	7.00
304	3	1.00	1.00	1.00	3.00	220.1	136.7	220.1	136.7	0.67
310	3	1.67	1.33	1.25	2.50	391.8	243.3	293.9	182.5	4.00
312	1	2.00	2.00	1.00	2.00	225.4	140.0	112.7	70.0	3.00
320	1	8.00	4.00	2.00	4.00	2061.2	1280.0	515.3	320.0	4.00
322	9	3.11	1.56	2.00	2.86	565.4	351.1	363.4	225.7	6.89
324	1	1.00	1.00	1.00	2.00	289.9	180.0	289.9	180.0	4.00
328	1	1.00	1.00	1.00	1.00	96.6	60.0	96.6	60.0	0.00
340	1	10.00	1.00	10.00	2.00	769.7	478.0	769.7	478.0	6.00
346	2	2.50	1.00	2.50	2.50	708.5	440.0	708.5	440.0	5.00

Continued ...

Table 66. Concluded.

WMU[a]	Number of Respondents[b]	Total Days Hunted per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Birds Taken per Person
						km	miles	km	miles	
348	2	2.00	1.50	1.33	2.67	201.3	125.0	134.1	83.3	6.50
350	1	1.00	1.00	1.00	1.00	322.1	200.0	322.1	200.0	2.00
352	3	9.33	2.67	3.50	2.63	1599.5	993.3	599.8	372.5	7.67
358	3	8.00	7.33	1.09	2.00	1009.2	626.7	137.7	85.5	4.67
440	1	10.00	10.00	1.00	2.00	483.1	300.0	48.3	30.0	17.00
500	2	4.00	3.50	1.14	2.00	724.6	450.0	207.1	128.6	16.00
502	2	1.25	1.50	0.83	2.00	452.5	281.0	301.6	187.3	4.50
504	1	3.00	3.00	1.00	1.00	772.9	480.0	257.6	160.0	26.00
508	4	4.25	1.00	4.25	3.25	322.1	200.0	322.1	200.0	2.25
511	4	2.13	1.00	2.13	1.75	322.1	200.0	322.1	200.0	5.25
512	2	8.00	5.50	1.45	2.09	724.6	450.0	131.7	81.8	0.00
514	2	4.50	3.50	1.29	1.86	177.1	110.0	50.6	31.4	7.00
518	5	3.40	2.80	1.21	2.64	502.4	313.0	179.4	111.4	5.20
520	1	2.50	5.00	0.50	2.00	161.0	100.0	32.2	20.0	11.00
522	4	1.75	1.00	1.75	2.75	810.8	503.5	810.8	503.5	3.50
524	2	1.25	1.00	1.25	2.50	257.6	160.0	257.6	160.0	1.50
526	1	2.00	1.00	2.00	2.00	1127.2	700.0	1127.2	700.0	10.00
528	1	1.50	1.00	1.50	2.00	805.1	500.0	805.1	500.0	10.00
536	1	7.00	8.00	0.88	1.13	1465.4	910.0	183.3	113.8	90.00
Not Specified	1	3.00	1.00	3.00	3.00	1288.2	800.0	1288.2	800.0	0.50
Province-Wide[c]	163	4.13	2.58	1.60	2.47	634.5	394.0	246.2	152.9	7.56

[a]Wildlife Management Unit locations for the Province are given in Figure 2.

[b]Each of the 163 respondents, on average, hunted upland bird game in 1.3 Wildlife Management Units.

[c]The figures, reading across, pertain to the entire province.

Table 67. Migratory bird game hunting activity by Wildlife Management Unit of provincial hunting survey respondents, 1975-76 season.

WMU[a]	Number of Respondents[b]	Total Days Hunted per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Waterfowl Taken per Person
						km	miles	km	miles	
102	1	2.00	1.00	2.00	2.00	161.0	100.0	161.0	100.0	12.00
106	1	2.00	1.00	2.00	3.00	579.7	360.0	579.7	360.0	5.00
108	7	4.43	4.14	1.07	2.62	371.3	230.6	89.7	55.7	12.86
110	2	1.50	1.50	1.00	2.67	217.4	135.0	144.9	90.0	2.00
112	1	13.00	13.00	1.00	2.23	1256.0	780.0	96.6	60.0	30.00
114	9	3.56	3.56	1.00	2.03	465.5	289.1	130.9	81.3	7.11
116	3	5.00	3.33	1.50	2.10	204.0	126.7	61.2	38.0	5.33
126	3	1.17	1.67	0.70	2.00	64.4	40.0	38.6	24.0	4.00
128	4	5.25	4.75	1.11	2.32	382.4	237.5	80.5	50.0	1.00
130	4	3.75	3.75	1.00	2.33	793.1	492.5	211.4	131.3	19.00
132	6	1.83	1.50	1.22	2.67	300.6	186.7	200.3	124.4	3.00
136	3	5.17	2.67	1.94	2.25	692.4	430.0	259.7	161.3	10.67
138	1	7.00	4.00	1.75	2.00	901.8	560.0	225.4	140.0	26.00
140	5	1.70	1.20	1.42	2.83	157.8	98.0	131.6	81.7	3.40
142	15	4.23	2.40	1.76	3.19	484.9	301.1	201.9	125.4	3.80
144	1	21.00	2.00	10.50	2.50	837.4	520.0	418.7	260.0	46.00
148	2	5.00	2.00	2.50	3.75	1400.9	870.0	700.5	435.0	4.50
150	2	2.50	1.00	2.50	2.00	805.1	500.0	805.1	500.0	10.50
152	2	1.50	1.50	1.00	2.33	579.7	36.0	386.5	240.0	2.50
156	13	1.54	1.38	1.11	2.39	262.16	163.1	189.7	117.8	6.08
158	7	4.14	3.86	1.07	2.48	1134.1	704.3	294.0	182.6	11.86
160	2	3.00	1.00	3.00	3.00	426.7	265.0	426.7	265.0	1.50
162	6	1.83	1.00	1.83	3.50	633.3	393.3	633.3	393.3	8.00
164	12	3.75	2.33	1.61	3.93	629.3	390.8	269.7	167.5	11.92
166	19	3.39	2.11	1.61	2.63	589.9	366.3	280.2	174.0	6.84
200	8	2.63	2.00	1.31	3.75	797.9	495.5	399.0	247.8	13.00

Continued ...

Table 67. Continued.

WUM[a]	Number of Respondents[a]	Total Days Hunted per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Waterfowl Taken per Person
						km	miles	km	miles	
202	7	2.57	1.71	1.50	2.75	611.9	380.0	357.0	221.7	8.43
204	6	7.67	7.00	1.10	2.71	687.1	426.7	98.2	61.0	15.17
206	21	3.55	1.76	2.01	2.65	494.4	307.0	280.5	174.2	14.24
208	1	0.50	1.00	0.50	3.00	25.8	16.0	25.8	16.0	2.00
210	7	2.07	2.00	1.04	2.64	391.1	242.9	195.5	121.4	8.57
212	15	2.60	2.60	1.00	2.46	233.0	144.7	89.5	55.6	7.40
214	3	4.33	2.00	2.17	2.00	233.0	146.7	118.0	73.3	15.00
218	2	1.25	1.50	0.83	3.33	161.0	100.0	107.4	66.7	5.00
220	16	3.19	3.25	0.98	2.71	320.5	199.0	98.6	61.2	14.13
221	2	2.50	3.00	0.83	1.50	115.9	72.0	38.6	24.0	5.50
222	15	5.30	4.67	1.14	2.94	589.9	366.3	126.4	78.5	19.67
224	3	1.50	2.33	0.64	2.14	338.2	210.0	144.9	90.0	6.33
226	11	2.36	2.00	1.18	2.64	296.0	183.8	147.8	91.9	18.00
228	33	4.70	3.42	1.37	2.62	503.4	312.6	147.0	91.3	13.64
230	8	2.75	1.50	1.83	2.75	233.5	145.0	155.7	96.7	12.50
232	2	1.50	1.00	1.50	2.00	273.8	170.0	273.8	170.0	9.00
233	8	2.69	2.13	1.26	2.65	446.1	277.0	209.9	130.4	9.00
234	1	2.00	2.00	1.00	3.00	193.2	120.0	96.6	60.0	16.00
236	2	6.50	8.00	0.81	2.19	1046.7	650.0	130.9	81.3	26.00
238	10	3.20	2.60	1.23	2.42	546.2	339.2	210.1	130.5	13.70
240	19	2.37	1.74	1.36	2.36	374.6	232.6	215.6	133.9	14.47
242	14	3.07	2.86	1.08	3.03	350.9	217.9	122.9	76.3	12.29
244	7	2.43	3.00	0.81	2.14	298.1	185.1	99.4	61.7	6.71
246	1	5.00	5.00	1.00	2.00	112.7	70.0	22.5	14.0	15.00
248	12	2.58	2.33	1.11	2.71	278.3	172.8	119.3	74.1	11.17
250	7	3.00	3.14	0.95	3.41	326.7	202.9	104.0	64.6	11.00
252	16	2.50	2.31	1.08	3.05	431.7	268.1	186.8	116.0	12.44
256	4	4.75	2.00	2.38	2.00	327.7	203.5	163.9	101.8	25.50

Continued ...

Table 67. Continued.

WMU[a]	Number of Respondents[b]	Total Days Hunted per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Waterfowl Taken per Person
						km	miles	km	miles	
258	8	6.38	5.88	1.09	2.13	401.0	249.0	68.3	42.4	26.88
260	3	1.67	1.33	1.25	2.00	343.5	213.3	257.6	160.0	6.00
300	3	2.00	2.33	0.86	2.71	209.3	130.0	89.7	55.7	5.67
302	2	2.50	1.00	2.50	3.50	185.2	115.0	185.2	115.0	8.50
304	5	3.20	2.00	1.60	2.80	373.6	232.0	186.8	116.0	8.00
310	10	2.80	2.50	1.12	2.88	240.3	149.2	96.1	59.7	9.80
322	2	2.00	2.00	1.00	1.25	88.6	55.0	44.3	27.5	3.50
336	6	2.83	2.50	1.13	3.00	220.6	137.0	88.2	54.8	12.33
340	3	2.50	2.33	1.07	2.86	366.0	227.3	156.8	97.4	6.00
348	2	4.00	4.00	1.00	1.88	1248.0	775.0	312.1	193.8	3.00
350	1	1.00	1.00	1.00	1.00	322.1	200.0	322.1	200.0	2.00
351	3	1.17	1.33	0.88	2.00	75.2	46.7	56.4	35.0	2.67
354	1	1.00	1.00	1.00	3.00	12.9	8.0	12.9	8.0	0.00
356	1	4.00	4.00	1.00	2.00	90.2	56.0	22.5	14.0	0.00
358	3	7.33	7.33	1.00	2.09	397.3	246.7	54.1	33.6	14.67
420	1	1.00	1.00	1.00	2.00	322.1	200.0	322.1	200.0	2.00
440	1	10.00	10.00	1.00	2.00	483.1	300.0	48.3	40.0	30.00
500	4	4.50	4.50	1.00	2.83	475.0	295.0	105.6	65.6	16.25
502	4	3.50	3.50	1.00	2.50	446.9	277.5	127.7	79.3	16.50
504	1	1.00	1.00	1.00	4.00	241.5	150.0	241.5	150.0	5.00
506	3	1.33	1.00	1.33	1.67	289.9	180.0	289.9	180.0	3.00
508	6	4.33	4.00	1.08	1.75	292.6	181.7	73.1	45.4	15.50
510	4	5.63	3.50	1.61	4.43	442.8	275.0	126.6	78.6	16.75
511	1	4.00	1.00	4.00	3.00	19.3	12.0	19.3	1..0	8.00
512	3	6.67	1.00	6.67	2.67	407.9	253.3	407.9	253.3	12.67
514	5	3.10	2.40	1.29	2.42	373.6	232.0	155.7	96.7	18.20
518	1	1.00	1.00	1.00	1.00	6.4	4.0	6.4	4.0	1.00
522	11	3.14	2.18	1.44	2.54	614.8	381.8	281.8	175.0	6.18

Continued ...

Table 67. Concluded.

WMU[a]	Number of Respondents[b]	Total Hunted per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Waterfowl Taken per Person
						km	miles	km	miles	
524	2	7.25	7.50	0.97	1.93	386.5	240.0	51.5	32.0	4.50
526	3	2.33	1.00	2.33	3.33	928.7	576.7	928.7	576.7	4.00
528	1	1.50	1.00	1.50	2.00	805.2	500.0	805.2	500.0	10.00
534	1	6.00	6.00	1.00	2.50	483.1	300.0	80.5	50.0	62.00
536	1	3.50	1.00	3.50	2.00	901.8	560.0	901.8	560.0	12.00
Not Specified	3	3.00	5.00	0.60	1.27	118.0	73.3	23.7	14.7	18.33
Province Wide[c]	321	5.33	4.23	1.26	2.62	684.4	425.0	161.8	100.4	17.74

[a]Wildlife Management Unit locations for the Province are given in Figure 2.

[b]Each of the 321 respondents, on average, hunted waterfowl in 1.6 Wildlife Management Units.

[c]The figures, reading across, pertain to the entire Province.

Table 68. Big game harvest by species and Wildlife Management Unit of provincial hunting survey respondents, 1975-76 season.

WMU[a]	Number of Animals Taken											
	Big Game Unspecified	Antelope	Bear Unspecified	Black Bear	Caribou	Dear Unspecified	Mule Deer	White-tailed Deer	Elk	Big Horn Moose	Sheep	Total No. of Animals Taken
102	0	2	0	0	0	0	0	0	0	0	0	2
104	0	1	0	0	0	0	1	0	0	0	0	2
106	0	0	0	0	0	0	0	0	0	0	0	0
108	0	2	0	0	0	0	0	1	0	0	0	3
110	0	0	0	0	0	0	3	1	1	0	0	5
112	0	0	0	0	0	0	0	0	0	0	0	0
114	0	0	0	0	0	0	1	0	0	0	0	1
116	0	1	0	0	0	0	0	0	0	0	0	1
118	0	0	0	0	0	0	0	1	0	0	0	1
120	0	0	0	0	0	0	0	0	0	0	0	0
126	0	1	0	0	0	0	0	0	0	0	0	1
128	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	1	0	0	0	0	0	0	0	1
132	0	0	0	0	0	0	1	0	1	0	0	2
140	0	1	0	0	0	0	0	0	0	0	0	1
142	0	1	0	0	0	0	0	0	0	0	0	1
148	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	2	1	0	0	0	3
152	0	0	0	0	0	0	0	0	0	1	0	1
156	0	0	0	0	0	0	0	0	0	1	0	1
158	0	0	0	0	0	1	3	0	0	0	0	4
160	0	0	0	0	0	0	0	0	0	0	0	0
162	0	0	0	0	0	0	0	0	0	0	0	0
164	0	0	0	0	0	0	0	1	0	0	0	1
166	0	0	0	0	0	1	0	1	0	0	0	2

Continued ...

Table 68. Continued.

WMU[a]	Number of Animals Taken											Total No. of Animals Taken
	Big Game Unspecified	Antelope	Bear Unspecified	Black Bear	Caribou	Deer Unspecified	Mule Deer	White tailed Deer	Elk	Moose	Big Horn Sheep	
200	0	0	0	0	0	0	0	0	0	0	0	0
202	0	0	0	0	0	0	0	0	0	0	0	0
204	0	0	0	0	0	0	1	0	0	0	0	1
206	0	0	0	0	0	0	1	1	0	0	0	2
212	0	0	0	0	0	0	1	0	0	0	0	1
214	0	0	0	0	0	0	2	0	0	0	0	2
216	0	0	0	0	0	0	0	0	0	0	0	0
220	0	0	0	0	0	1	1	3	0	0	0	5
222	0	0	0	0	0	0	0	2	0	1	0	3
224	0	0	0	0	0	0	0	0	0	0	0	0
226	0	0	0	0	0	0	0	0	0	0	0	0
228	0	0	0	0	0	0	0	0	0	0	0	0
230	0	0	0	0	0	0	1	0	0	0	0	1
233	0	0	0	0	0	1	0	1	0	0	0	2
236	0	0	0	0	0	0	0	1	0	0	0	1
238	0	0	0	0	0	1	0	0	0	0	0	1
240	0	0	0	0	0	0	0	0	0	0	0	0
242	0	0	0	0	0	0	0	0	0	0	0	0
244	0	0	0	0	0	0	0	1	0	0	0	1
248	0	0	0	0	0	0	0	1	0	0	0	1
256	0	0	0	0	0	0	0	0	0	0	0	0
258	0	0	0	0	0	0	0	0	0	0	0	0
300	0	0	0	0	0	0	1	1	1	0	0	3
302	0	0	0	0	0	0	2	0	0	0	0	2
304	0	0	0	0	0	0	3	1	2	0	0	6
310	0	0	0	0	0	0	1	1	0	1	0	3
312	0	0	0	0	0	0	2	1	0	0	0	3
314	0	0	0	0	0	0	0	0	0	0	0	0

Continued ...

Table 68. Continued.

WMU[a]	Number of Animals Taken											
	Big Game Unspecified	Antelope	Bear Unspecified	Black Bear	Caribou	Deer Unspecified	Mule Deer	White-tailed Deer	Elk	Moose	Big Horn Sheep	Total No. of Animals Taken
318	0	0	0	0	0	0	0	0	0	0	0	0
320	0	0	0	0	0	0	0	0	1	0	0	1
322	0	0	0	0	0	0	2	0	1	0	0	3
324	0	0	0	0	0	0	0	0	0	0	0	0
328	0	0	0	0	0	0	0	0	1	0	0	1
330	0	0	0	0	0	0	0	0	0	0	0	0
332	0	0	0	0	0	0	0	0	0	0	0	0
338	0	0	0	0	0	0	0	0	0	0	0	0
340	0	0	0	0	0	0	1	0	2	0	0	3
342	0	0	0	0	0	0	0	1	0	0	0	1
344	0	0	0	0	0	0	0	0	0	1	0	1
346	0	0	0	0	0	0	0	0	0	1	0	1
348	0	0	0	0	0	0	1	0	0	0	0	1
350	0	0	0	0	0	0	0	0	0	4	0	4
351	0	0	0	0	0	0	0	0	0	1	0	1
352	0	0	0	0	0	0	0	0	0	2	0	2
353	0	0	0	0	0	0	0	0	0	0	0	0
356	0	0	0	0	0	0	0	0	0	0	0	0
358	0	0	0	0	0	0	1	0	0	4	0	5
400	0	0	0	0	0	0	0	0	0	0	0	0
402	0	0	0	0	0	0	0	0	0	0	0	0
404	0	0	0	0	0	0	0	0	0	0	0	0
406	0	0	0	0	0	0	0	1	0	0	0	1
408	0	0	0	0	0	0	2	0	0	0	0	2
410	0	0	0	0	0	0	0	0	0	0	0	0
418	0	0	0	0	0	0	0	0	0	0	0	0
426	0	0	0	0	0	0	0	0	0	0	0	0

Continued ...

Table 68. Concluded.

WMU[a]	Number of Animals Taken											
	Big Game Unspecified	Antelope	Bear Unspecified	Black Black	Caribou	Deer Unspecified	Mule Deer	White tailed Deer	Elk	Moose	Big Horn Sheep	Number of Animals Taken
429	0	0	0	0	0	0	0	0	0	0	0	0
438	0	0	1	0	0	0	0	0	0	0	0	1
440	0	0	0	0	0	0	0	0	0	0	0	0
442	0	0	0	0	0	0	0	0	0	0	0	0
500	0	0	0	0	0	0	0	0	0	0	0	0
506	0	0	0	0	0	0	0	0	0	0	0	0
508	0	0	0	0	0	0	0	0	0	0	0	0
510	0	0	0	0	0	0	0	0	0	0	0	0
511	0	0	0	0	0	0	0	0	1	0	0	1
512	0	0	0	0	0	0	0	0	1	1	0	2
514	0	0	0	0	0	0	0	0	0	0	0	0
516	0	0	0	0	0	0	0	1	0	0	0	1
518	0	0	0	0	0	0	0	0	0	1	0	1
520	0	0	0	0	0	0	0	1	0	0	0	1
522	0	0	0	0	0	0	1	0	0	4	0	5
524	0	0	0	1	0	0	0	0	0	3	0	4
526	0	0	0	0	0	0	0	0	0	1	0	1
Not Specified	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL	0	9	1	2	0	5	35	24	13	27	0	116

[a]Wildlife Management Unit locations in the Province are given in Figure 2. The number of big game hunter respondents by species are given in Table 62 and the number of big game hunter respondents by WMU are given in Figure 65.

Table 69. Upland bird game harvest by species and Wildlife Management Unit of provincial hunting survey respondents, 1975-76 season.

WMU[a]	Number of Birds Taken									
	Upland Bird Game Unspecified	Grouse Unspecified	Ruffed Grouse	Sage Grouse	Sharp tailed Grouse	Spruce Grouse	Partridge	Pheasant	Ptarmigan Unspecified	Total No. of Birds Taken
102	0	0	2	0	0	0	0	0	0	2
104	0	0	0	0	0	0	0	0	0	0
108	10	0	0	2	0	0	0	21	0	33
112	0	0	0	0	0	0	3	2	0	5
114	0	4	3	0	4	0	0	5	0	16
116	0	0	0	0	0	0	0	1	0	1
128	0	0	6	0	0	0	0	15	0	21
130	0	4	21	0	0	0	15	26	0	66
132	0	0	22	0	15	0	4	8	0	49
136	0	0	15	0	0	0	0	6	0	21
140	0	1	0	0	0	0	0	0	0	1
142	0	0	14	0	6	0	12	100	0	132
144	0	0	0	0	0	0	0	3	0	3
148	0	0	10	0	0	0	30	0	0	40
150	0	6	0	0	10	0	0	0	0	16
152	0	4	0	0	0	0	0	5	0	9
156	0	4	60	0	0	0	4	53	0	121
158	0	5	8	0	0	0	0	1	0	14
160	0	0	0	0	0	0	0	0	0	0
162	0	0	0	0	0	0	4	7	0	11
1640	0	0	0	0	9	0	0	0	0	9
166	0	0	0	0	0	0	8	0	0	8
200	0	8	4	0	1	0	0	0	0	13
204	0	12	0	0	0	0	0	0	0	12
206	3	2	0	0	6	0	0	6	0	17
210	0	0	1	0	0	0	0	0	0	1

Continued ...

Table 69. Continued.

WMU[a]	Number of Birds Taken									
	Upland Bird Game Unspecified	Grouse Unspecified	Ruffed Grouse	Sage Grouse	Sharp-tailed Grouse	Spruce Grouse	Partridge	Pheasant	Ptarmigan Unspecified	Total No. of Birds Taken
212	0	3	0	0	8	0	0	9	0	20
214	0	0	1	0	0	0	5	1	0	7
216	0	1	2	0	0	1	0	0	0	4
220	0	1	0	0	0	0	0	0	0	1
221	0	0	0	0	0	0	0	0	0	0
224	0	1	0	0	0	0	0	0	0	1
226	4	0	0	0	0	0	0	0	0	4
228	0	0	0	0	0	0	0	2	0	2
233	0	0	0	0	6	0	0	0	0	6
236	6	2	0	0	0	0	0	0	0	8
238	0	7	2	0	20	0	5	0	0	34
242	0	2	8	0	2	0	0	0	0	12
244	0	0	0	0	0	0	0	0	0	0
248	0	0	0	0	0	0	0	0	0	0
250	0	7	0	0	0	0	0	0	0	7
252	0	7	10	0	0	0	0	2	0	19
256	0	2	0	0	0	0	0	0	0	2
258	0	5	0	0	4	0	0	0	0	9
260	0	0	14	0	0	0	0	0	0	14
300	6	0	0	0	0	0	0	0	0	6
302	0	7	0	0	0	0	0	0	0	7
304	0	0	0	0	0	0	0	2[1]	0	2
310	0	5	6	0	0	0	0	1	0	12
312	0	0	3	0	0	0	0	0	0	3
320	0	4	0	0	0	0	0	0	0	4
322	0	46	3	0	0	13	0	0	0	62
324	0	4	0	0	0	0	0	0	0	4
328	0	0	0	0	0	0	0	0	0	0

Continued ...

Table 69. Concluded.

WMU[a]	Number of Birds Taken									
	Upland Bird Game Unspecified	Grouse Unspecified	Ruffed Grouse	Sage Grouse	Sharp-tailed Grouse	Spruce Grouse	Partridge	Pheasant	Ptarmigan Unspecified	Total No. of Birds Taken
340	0	0	2	0	0	4	0	0	0	6
346	0	0	6	0	0	4	0	0	0	10
348	10	1	0	0	0	0	0	2	0	13
350	0	2	0	0	0	0	0	0	0	2
352	0	6	17	0	0	0	0	0	0	23
358	0	9	0	0	5	0	0	0	0	14
440	0	0	17	0	0	0	0	0	0	17
500	0	32	0	0	0	0	0	0	0	32
502	0	2	7	0	0	0	0	0	0	9
504	0	26	0	0	0	0	0	0	0	26
508	1	5	3	0	0	0	0	0	0	9
511	0	4	17	0	0	0	0	0	0	21
512	0	0	0	0	0	0	0	0	0	0
514	0	14	0	0	0	0	0	0	0	14
518	0	21	0	0	0	0	0	0	2	26
520	0	0	11	0	0	0	0	0	0	11
522	5	9	0	0	0	0	0	0	0	14
524	3	0	0	0	0	0	0	0	0	3
526	0	10	0	0	0	0	0	0	0	10
528	10	0	0	0	0	0	0	0	0	10
536	20	70	0	0	0	0	0	0	0	90
Not Specified	0	0	0	2	0	0	0	0	0	2
TOTAL	78	365	295	4	96	22	93	278	2	1,233

[a]Wildlife Management Unit locations in the Province are given in Figure 2. The number of upland bird game hunter respondents by species are given in Table 63 and the number of upland bird game hunter respondents by WMU are given in Table 66.

Table 70. Migratory bird game harvest by species and by Wildlife Management Unit of provincial hunting survey respondents, 1975-76 season.

WMU[a]	Number of Waterfowl Taken						
	Migratory Bird Game Unspecified	Duck Unspecified	Mallard Duck	Goose Unspecified	Canada Goose	Snow Goose	Total No. of Waterfowl Taken
102	0	12	0	0	0	0	12
106	0	5	0	0	0	0	5
108	0	69	0	21	0	0	90
110	0	4	0	0	0	0	4
112	0	30	0	0	0	0	30
114	0	52	0	12	0	0	64
116	0	13	0	3	0	0	16
126	0	12	0	0	0	0	12
128	0	1	0	3	0	0	4
130	0	71	0	5	0	0	76
132	0	18	0	0	0	0	18
136	0	30	0	2	0	0	32
138	0	25	0	1	0	0	26
140	0	8	0	9	0	0	17
142	0	50	0	7	0	0	57
144	0	36	0	10	0	0	46
148	0	9	0	0	0	0	9
150	0	0	0	21	0	0	21
152	0	0	0	5	0	0	5
156	0	73	0	6	0	0	79
158	0	82	0	1	0	0	83
160	0	3	0	0	0	0	3
162	0	24	0	20	2	2	48
164	0	49	0	94	0	0	143
166	0	46	0	72	12	0	130
200	0	87	0	17	0	0	104

Continued ...

Table 70. Continued.

WMU[a]	Number of Waterfowl Taken						
	Migratory Bird Game Unspecified	Duck Unspecified	Mallard Duck	Goose Unspecified	Canada Goose	Snow Goose	Total No. of Waterfowl Taken
202	0	34	0	25	0	0	59
204	0	51	0	40	0	0	91
206	0	295	0	4	0	0	299
208	0	2	0	0	0	0	2
210	0	60	0	0	0	0	60
212	0	110	0	1	0	0	111
214	0	40	5	0	0	0	45
218	0	10	0	0	0	0	10
220	0	191	30	5	0	0	226
221	0	11	0	0	0	0	11
222	0	270	8	17	0	0	295
224	0	15	0	4	0	0	19
226	0	198	0	0	0	0	198
228	0	437	10	3	0	0	450
230	0	82	18	0	0	0	100
232	0	18	0	0	0	0	18
233	0	38	33	1	0	0	72
234	0	12	0	4	0	0	16
236	0	47	0	5	0	0	52
238	0	132	0	5	0	0	137
240	0	190	78	7	0	0	275
242	0	138	26	8	0	0	172
244	0	39	2	6	0	0	47
246	0	15	0	0	0	0	15
248	0	124	0	10	0	0	134
250	0	57	20	0	0	0	77
252	0	162	34	3	0	0	199
256	0	100	0	2	0	0	102
258	0	213	0	2	0	0	215

Continued ...

Table 70. Continued.

WMU[a]	Number of Waterfowl Taken						Total No. of Waterfowl Taken
	Migratory Bird Game Unspecified	Duck Unspecified	Mallard Duck	Goose Unspecified	Canada Goose	Snow Goose	
260	0	18	0	0	0	0	18
300	0	17	0	0	0	0	17
302	0	17	0	0	0	0	17
304	0	40	0	0	0	0	40
310	0	88	0	10	0	0	98
322	0	7	0	0	0	0	7
336	0	74	0	0	0	0	74
340	0	18	0	0	0	0	18
348	0	6	0	0	0	0	6
350	0	2	0	0	0	0	2
351	0	4	0	4	0	0	8
354	0	0	0	0	0	0	0
356	0	0	0	0	0	0	0
358	0	35	0	9	0	0	44
420	0	2	0	0	0	0	2
440	0	30	0	0	0	0	30
500	0	65	0	0	0	0	65
502	0	66	0	0	0	0	66
504	0	5	0	0	0	0	5
506	0	4	5	0	0	0	9
508	0	68	25	0	0	0	93
510	0	67	0	0	0	0	67
511	0	8	0	0	0	0	8
512	0	38	0	0	0	0	38
514	0	81	0	10	0	0	91
518	0	1	0	0	0	0	1
522	0	62	0	6	0	0	68

Continued ...

Table 70. Concluded.

WMU[a]	Number of Waterfowl Taken						
	Migratory Bird Game Unspecified	Duck Unspecified	Mallard Duck	Goose Unspecified	Canada Goose	Snow Goose	Total No. of Waterfowl Taken
524	0	7	0	2	0	0	9
526	0	6	0	6	0	0	12
528	0	10	0	0	0	0	10
534	0	60	0	2	0	0	62
536	0	10	0	2	0	0	12
Not Specified	0	55	0	0	0	0	55
TOTAL	0	4,871	294	512	14	2	5,693

[a]Wildlife Management Unit locations in the Province are given in Figure 2. The number of waterfowl hunter respondents by species are given in Table 64 and the number of waterfowl hunter respondents by WMU are given in Table 67.

Table 71. Comments on provincial hunting provided by provincial survey respondents, 1975-76 season.

Comment[a]		Number of Respondents
Improvements		221
(1)	Shorter or altered hunting seasons	(34)
(2)	Reduce or preclude non-resident hunting	(23)
(3)	Compulsory hunter training program	(22)
(4)	More enforcement	(16)
(5)	Increase pheasant habitat and stocking	(12)
(6)	Licensing changes	(11)
(7)	Reduce overhunting	(11)
(8)	Limit and regulate native hunting	(10)
(9)	Ban Trophy hunting	(8)
(10)	Improved management	(7)
(11)	Ban hunting by vehicle or plane	(5)
(12)	Increase preservation	(5)
(14)	Conserve wildlife for future generations	(4)
(15)	More landowner cooperation	(4)
(16)	Increase upland bird populations	(4)
(17)	No specific reasons	(3)
(18)	Too many regulations	(3)
(19)	More government support	(3)
(20)	Keep cattle out of forest land	(3)
(21)	Reduce doe populations in some areas	(2)
(22)	Kill wolves in northern Alberta	(2)
(23)	Limit range and scope of firearms used	(2)
(24)	Need more controls	(1)
(25)	Stop agricultural development in Peace River region	(1)
(26)	More emphasis on leaving farms undisturbed	(1)
(27)	Reduce pollution	(1)
(28)	Reduce habitat damage caused by industry	(1)
(29)	Eliminate feeding stations	(1)
(30)	Reduce overcrowding	(1)
(31)	Promote growth of beaver colonies	(1)
(32)	Place bounty on coyotes	(1)
(33)	Need upland bird population research	(1)
(34)	Need better facilities, including campgrounds	(1)
(35)	Improve access	(1)
(36)	Increased hunting safety	(1)
(37)	Open up Canada-U.S. border for mule deer hunting	(1)
(38)	Ban automatic shotguns for bird game	(1)
(39)	Eliminate farm fence allowances, allow bush cover	(1)

Continued ...

Table 71. Concluded.

Comments[a]		Number of Respondents
(40) More "hunting by permission" signs on farm land	(1)	
(41) More zones open to archery hunting	(1)	
(42) Avoid lead poisoning caused by shotgun pellets	(1)	
Hunting is priceless		60
Hunting is a good recreational activity		45
(1) for enjoyment	(22)	
(2) for outdoor experiences	(14)	
(3) for health reasons	(6)	
(4) main form of recreation	(3)	
Would stop hunting without compensation		23
(1) for one year for good of sport	(15)	
(2) for conservation reasons	(8)	
Hunting is good		10
Hunt for food		8
Hunting is important		6
Hunting is excellent		3
Not a good hunter		3
lack time to enjoy hunting		3
Hunt for sport		2
Primarily a fisherman		2
Hunting is becoming a sport for the rich only		2
Prohibit guides; teach people instead		2
Hunting is good in remote areas		1
Hunting is very good		1
Would like to hunt in northern Alberta		1
Industrial development, disease, and population cycles affect animals--not hunters, except maybe trophy species		1
Hunting is a multimillion dollar business		1
A farmer feels hunters abuse his property		1
Miscellaneous comments[b]		19
TOTAL NUMBER OF COMMENTS[c]		415

[a] Each questionnarie recipient was asked to give any additional comments which might help to evaluate the sport hunting in Alberta.

[b] Includes comments which did not pertain to evaluation of sport hunting in the province or could not be interpreted.

[c] Among the 559 respondents who hunted in Alberta during the 1975-76 season, 259 gave no comment, 185 provided one comment, and 115 provided two comments.

Table 72. Significance between first and second mailings on selected variables for provincial hunting survey respondents, 1975-76 season.

Variable[a]	Chi Square	Degrees of Freedom	Percent Significance[b]
Family Size	39.825	18	0.22
Family Income	24.431	16	8.05
Whether Hunted in Alberta Prior to the 1975-76 Season	227.614	4	0.00
Whether Hunted in Alberta at Least Once During the 1975-76 Season	683.954	4	0.00
Number of Hunting Trips Taken During the 1975-76 Season	35.279	54	97.72
Rating of Big Game Hunting Experience in Alberta, 1975-76 Season	11.688	14	63.14
Rating of Upland Bird Game Hunting Experience in Alberta, 1975-76 Season	16.148	14	30.44
Rating of Waterfowl Hunting Experience in Alberta, 1975-76 Season	12.191	14	59.09
Extramarket Benefits--Big Game Hunting	47.855	64	93.18
Extramarket Benefits--Upland Bird Game Hunting	708.029	44	0.00
Extramarket Benefits--Waterfowl Hunting	717.468	70	0.00

[a]Among the 680 respondents, there were 422 in the first mailing, 257 in the second mailing, and one respondent not specified.

[b]The percentage for family income, number of hunting trips taken, rating of big game hunting, rating of upland bird game hunting, rating of waterfowl hunting, and extramarket benefits for big game hunting, all have percentages greater than 5.00 percent level of significance, thus providing no evidence of differences between first and second mailings. The remaining variables all have percentages less than 5.00 percent level of significance, indicating a difference between first and second mailings. Consequently, the overall results are inconclusive.

Table 73. Hunting experience in the AOSERP study area during the 1975-76 season of provincial hunting survey respondents, 1975-76 season.

Category	Number of Respondents	Percent of Total Response
Hunted in the AOSERP study area at least once during the 1975-76 season	12	2.2
Did not hunt in the AOSERP study area during the 1975-76 season	547	97.8
TOTAL	559	100.0

Table 74. Rating of big game hunting experiences in the AOSERP study area in relation to province-wide big game hunting experiences by provincial hunting survey respondents, 1975-76 season.

Ratings	Number of Respondents	Percent of Total Response	Adjusted Percent of Response	Cumulative Percent of Response
No Answer	2	16.7	n.a.	n.a.
Big game hunting better than province as a whole	4	33.3	40.0	40.0
Big game hunting as good as province as a whole	4	33.3	40.0	80.0
Big game hunting worse than province as a whole	2	16.7	20.0	100.0
TOTAL	12	100.0	100.0	

[a]The calculations are made with the exclusion of the number of respondents who did not give a rating (12 - 2 = 10).

Table 75. Ratings of upland bird game hunting experiences in the AOSERP study area in relation to province-wide upland bird game hunting experiences by provincial hunting survey respondents, 1975-76 season.

Ratings	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Cumulative Adjusted Percent of Response[a]
No Answer	7	58.4	n.a.	n.a.
Upland bird game hunting better than province as a whole	1	8.3	20.0	20.0
Upland bird game hunting as good as province as a whole	3	25.0	60.0	80.0
Upland bird game hunting worse than province as a whole	1	8.3	20.0	100.0
Total	12	100.0	100.0	

[a]The calculations are made with the exclusion of the number of respondents who did not give a rating (12 - 7 = 5).

Table 76. Rating of migratory bird game hunting experiences in the AOSERP study area in relation to province-wide migratory bird game hunting experiences by provincial hunting survey respondents, 1975-76 season.

Ratings	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Cumulative Adjusted Percent of Response[a]
No Answer	8	66.6	n.a.	n.a.
Waterfowl hunting better than province as a whole	0	0.0	0.0	0.0
Waterfowl hunting as good as province as a whole	2	16.7	50.0	50.0
Waterfowl hunting worse than province as a whole	2	16.7	50.0	100.0
TOTAL	12	100.0	100.0	

[a]The calculations are made with the exclusion of the number of respondents who did not give a rating (12 - 8 = 4).

Table 77. Hunting costs of provincial hunting survey respondents who resided in the AOSERP study area during the 1975-76 season.

Item	Average Costs per Person per Season			
	Big Game	Upland Bird	Waterfowl	All Hunting Combined
Travel Costs	$ 88.75	$26.25	$42.50	$ 90.84
Lodging	0.00	0.00	0.00	0.00
Food	38.75	10.00	17.50	38.33
Beverages	9.25	5.75	15.00	15.00
Rentals	0.00	0.00	0.00	0.00
Guides	0.00	2.50	2.50	2.50
Ammunition	8.50	10.00	12.50	16.50
Services	0.00	0.00	0.00	0.00
Other Costs	0.00	0.00	0.00	0.00
Total Variable Costs	$145.25	$54.40	$90.00	$163.17
Capital Purchases				$128.54

[a]See Tables 25 through 55 for provincial costs on these items.

[b]Calculations are based on six provincial respondents who hunted in the province during the 1975-76 season and resided or were employed in the AOSERP study area. These six respondents are a subsample of the 12 respondents who hunted in the area during the 1975-76 season (Tables 73 through 80).

Table 78. Extramarket benefits per person per day for big game hunting in the AOSERP study area by provincial hunting survey respondents, 1975-76 season.

Extramarket Benefits per Day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	3	25.0	n.a.
Not Specified	1	8.3	n.a.
$ 0	1	8.3	12.5
5	1	8.3	12.5
10	1	8.3	12.5
16	1	8.3	12.5
20	2	16.7	25.0
30	1	8.3	12.5
105	1	8.3	12.5
TOTAL	12	100.0	100.0

Mean[b], $25.75; Mode[b], $20.00; Median[b], $18.00; Standard Deviation[b], $31.23.

[a]Extramarket benefit is the value of a day's hunting in the AOSERP study area by a respondent, over and above what is spent on travel and other hunting expenses.

[b]The calculations are made with the exclusion of the number of respondents who did not indicate extramarket benefits (12 - 3 - 1 = 8).

[c]Respondents who hunted in the area but did not hunt big game.

Table 79. Extramarket benefits per person per day for upland bird game hunting in the AOSERP study area by provincial hunting survey respondents, 1975-76 season.

Extramarket Benefit per day[b]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	4	33.3	n.a.
Not Specified	3	33.3	n.a.
$ 0	3	25.0	60.0
10	1	8.3	20.0
50	1	8.3	20.0
TOTAL	12	100.0	100.0

Mean[b], $12.00; Mode[b], $0.00; Median[b], $0.00; Standard Deviation[b], $19.39.

[a]Extramarket benefit is the value of a day's hunting in the AOSERP study area by a respondent, over and above what is spent on travel and other hunting expenses.

[b]Calculations are made with the exclusion of the number of respondents who did not indicate extramarket benefits (12 - 4 - 3 = 5).

[c]Respondents who hunted in the area but did not hunt upland bird game.

Table 80. Extramarket benfits per person per day for waterfowl hunting in the AOSERP study area by provincial hunting survey respondents. 1975-76 season.

Extramarket Benefit per day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[b]	8	66.7	n.a.
$ 10	2	16.7	50.0
30	1	8.3	25.0
35	1	8.3	25.0
TOTAL	12	100.0	100.0

Mean[b], $21.35; Mode[b], $10.00; Median[b], $20.00; Standard Deviation[b], $11.39.

[a]Extramarket benfit is the value of a day's hunting in the AOSERP study area by a respondent, over and above what is spent on travel and other hunting expenses.

[b]The calculations are made with the exclusion of the number of respondents who did not indicate extramarket benefits (12 - 8 = 4).

[c]Respondents who hunted in the area but did not hunt waterfowl.

Table 81. Days hunted, number of trips, and party size for provincial hunting survey respondents active in the AOSERP study area during the 1975-76 season.

No.[a]	Residence	Total No. of Days Hunted in Study area	Percent of Total Alberta Hunting Days Spent in Study Area	No. of Trips Taken to or Within Study Area	Ave. No. of Days Hunted per Trip in Study Area	Av. Hunting Party Size per Trip Taken to or Within Study Area	Total Distance Travelled on Trips Taken to or Within Study Area		Ave. Distance per Trip Taken to or Within Study Area	
							km	miles	km	miles
1.	Calgary	2.0	20.0	1	2.0	4.0	1288.2	800.0	1288.2	800.0
2.	Calgary	14.0	77.8	1	14.0	3.0	1449.2	900.0	1449.2	900.0
3.	Edmonton	3.0	16.7	1	3.0	2.0	966.2	600.0	966.2	600.0
4.	Medley	6.0	35.2	1	6.0	4.0	644.1	400.0	644.1	400.0
5.	Sherwood Park	2.0	18.2	1	2.0	2.0	966.2	600.0	966.2	600.0
6.	Fort McMurray	5.0	100.0	5	1.0	3.8	148.0	92.0	29.6	18.4
7.	Fort McMurray	3.0	100.0	3	1.0	1.0	19.0	12.0	6.4	4.0
8.	Fort McMurray	5.0	100.0	2	2.5	4.0	258.0	160.0	128.8	80.0
9.	Fort McMurray	5.0	62.5	5	1.0	2.0	96.6	60.0	19.3	12.0
10.	Fort McMurray	2.0	28.6	1	2.5	3.0	96.6	60.0	96.6	60.0
	TOTAL	47.0		21.0			5392.4	3684.0		
	MEAN	4.7	48.0	2.1	2.2	2.8	539.2	368.4	282.4	175.4
	STANDARD DEVIATION	3.4		1.6			512.9	318.4		

[a]Among the 559 respondents who hunted in Alberta during the 1975-76 season, 12 hunted in the AOSERP study area. Among these 12 respondents, 10 provided hunting activity information.

Table 82. Hunter activity and success by species in the AOSERP study area by provincial hunting survey respondents, 1975-76 season.

Species	Number of Respondents	Number of Times Sought	Number of Days	Number Taken	No. Taken per Person	No. of Days per Person
Caribou	1	2	5.0	0	0.00	5.00
White-tailed Deer	1	1	2.0	0	0.00	2.00
	6	7	32.0	1	0.17	5.33
TOTAL BIG GAME[a]	7	8	32.0	1		
AVERAGE BIG GAME					0.14	4.57
Ducks, Unspecified	1	1	1.0	1	1.00	1.00
Grouse, Unspecified	4	13	14.0	21	5.25	3.50
Partridge	1	1	3.0	3	3.00	3.00
Ptarmigan	1	1	1.0	2	2.00	1.00
TOTAL UPLAND BIRD GAME	5	14	17.0	26		
AVERAGE UPLAND BIRD GAME					5.20	3.40

[a]The totals for number of respondents, number of times sought, and number of days are more than corresponding totals presented since some hunters sought more than one species per trip.

Table 83. Location of hunter activity by AOSERP study area grid number of provincial hunting survey respondents, 1975-76 season.

Grid No.[a]	Number of Respondents[b]	Total Days Hunted per Person	Total Trips per Person	Days Hunted per Trip per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Species Sought			
						km	miles	km	miles	Name	No. Taken	Name	No. Taken
4	1	14.00	1.00	14.00	3.00	1449.2	900.0	1449.2	900.0	Moose	0		
6	1	3.00	1.00	3.00	2.00	966.2	600.0	966.2	600.0	Moose	0	Partridge	3
6	1	1.00	1.00	1.00	1.00	6.4	4.0	6.4	4.0	Grouse	2	Ptarmigan	2
7	1	1.00	1.00	1.10	1.00	6.4	4.0	6.4	4.0	Grouse	3		
9	1	5.00	2.00	2.50	4.00	257.6	160.0	128.8	80.0	Caribou	0	Moose	1
9	1	2.00	1.00	2.00	4.00	1288.2	800.0	1288.2	800.0	Deer	0	Grouse	2
9	1	5.00	5.00	1.00	2.00	96.6	60.0	19.3	12.0	Grouse	8		
10	3	3.33	1.00	3.33	3.00	568.9	353.3	568.9	353.3	Moose	0		
10	1	1.00	1.00	1.00	1.00	6.4	4.0	6.4	4.0	Duck	1		
10	1	5.00	5.00	1.00	3.80	148.1	92.0	29.6	18.4	Grouse	6		

[a]Grid number locations are given in Figure 3.

[b]Each of the 10 respondents, on average, hunted in 1.2 grid number locations.

Table 84. Comments on AOSERP study area hunting provided by provincial hunting survey respondents, 1975-76 season.

Comments[a]	Number of Respondents
Very valuable hunting area	2
Pollution should be kept to a minimum	2
Replant trees in areas of oil extraction	1
Wildlife management must coexist with industry and not be bought off	1
Hunting good and worth keeping at all costs	1
Hunting is priceless	1
Increased hunting pressure requires good game management	1
Area is overcrowded	1
Hunting is poor--should concentrate on fishing	1
Love eating moose but now the area is too depleted	1
Need limited range firearms and no hunting on river beds	1
Fishing is my main recreation activity, not hunting	1
Miscellaneous Comments[b]	1
TOTAL NUMBER OF COMMENTS[c]	15

[a] Each questionnaire recipient was asked to give any additional comments which might help to evaluate the sport of hunting in the study area.

[b] Includes a comment which did not pertain to evaluation of sport hunting in the study area.

[c] Among the 12 respondents who hunted in the study area during the 1975-76 season, one gave no comment, 7 provided one comment and 4 provided two comments.

8.3 AOSERP STUDY AREA SURVEY TABLES

Table 85. Residences of AOSERP study area hunting survey respondents, 1975-76 season.

Location	Number of Respondents	Percent of Total Response
Not Specified	2	0.5
Out of Province[a]	2	0.5
Edmonton[b]	4	1.0
Medicine Hat	1	0.3
Plamondon	3	0.8
Thorsby	1	0.3
Westlock	1	0.3
Anzac	4	1.0
Fort Chipewyan	11	2.8
Fort McKay	1	0.3
Fort McMurray	367	92.2
Elk Lake	1	0.3
TOTAL	398	100.0

[a]Respondents now live outside of the province but during the 1975-76 hunting season were employed or resided in the study area.

[b]All places listed from Edmonton through Westlock are located outside of the study area. Respondents now residing in these locations were employed or resided in the study area during the 1975-76 hunting season.

Table 86. Age distribution of AOSERP study area hunting survey respondents, 1975-76 season.

Age	Number of Respondents	Percent of Total Response	Age	Number of Respondents	Percent of Total Response
No Answer	1	0.3	41	10	2.5
14	2	0.5	42	9	2.3
15	2	0.5	43	10	2.5
16	7	1.8	44	8	2.0
18	15	3.8	45	8	2.0
19	3	0.8	47	4	1.0
20	14	3.5	48	2	0.5
21	10	2.5	49	3	0.8
22	15	3.8	50	4	1.0
23	11	2.8	51	2	0.5
24	8	2.0	52	2	0.5
25	16	4.0	54	2	0.5
26	22	5.5	56	3	0.8
27	16	4.0	57	2	0.5
28	18	4.5	58	2	0.5
29	14	3.5	59	1	0.3
30	14	3.5	60	2	0.5
31	17	4.3	62	1	0.3
32	10	2.5	63	1	0.3
33	16	4.0	65	2	0.5
34	16	4.0	66	1	0.3
35	12	3.0	67	1	0.3
36	14	3.5	68	1	0.3
37	10	2.5	69	2	0.5
38	8	2.0	74	1	0.3
39	8	2.0	76	1	0.3
40	4	1.0	TOTAL	398	100.0

Mean, 32.74; Mode, 26.00; Median, 30.88; Standard Deviation, 11.33.

Table 87. Male-female distribution of AOSERP study area hunting survey respondents, 1975-76 season.

Sex	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
No Answer	8	2.0	Not Applicable
Male	371	93.2	95.1
Female	19	4.8	4.9
TOTAL	398	100.0	100.0

[a]The percentages are calculated with the exclusion of the 8 respondents who gave no answer (398 - 8 = 390).

Table 88. Occupations of AOSERP study area hunting survey respondents, 1975-76 season.

Occupation	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
Not Specified	9	2.3	Not Applicable
Professonal & Technical	48	12.1	12.3
Managerial	54	13.6	13.9
Contractor	3	0.8	0.8
Farming	2	0.5	0.5
Tradesmen	90	22.6	23.1
Transporation & Communications	10	2.5	2.6
Service Occupations	26	6.5	6.7
Sales	5	1.3	1.3
Operative	53	13.3	13.6
Armed Forces	1	0.3	0.3
Clerical	5	1.3	1.3
Labourers	10	2.5	2.6
Homemaker	8	2.0	2.1
Student	17	4.3	4.4
Retired	4	1.0	1.0
Not in Labour Force	2	0.5	0.5
Miscellaneous	51	12.8	13.1
TOTAL	398	100.0	100.0

[a]The percentages are calculated with the exclusion of respondents who did not indicate their occupation (398 - 9 = 389).

Table 89. Family size of AOSERP study area hunting survey respondents, 1975-76 season.

Family Size	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
Not Specified	8	2.0	Not Applicable
1	50	12.6	12.8
2	47	11.8	12.1
3	81	20.4	20.8
4	94	23.6	24.1
5	51	12.8	13.1
6	38	9.5	9.7
7	9	2.3	2.3
8	15	3.8	3.8
9	5	1.3	1.3
TOTAL	398	100.0	100.0

Mean[a], 3.78; Mode[a], 4.00; Median[a], 3.68; Standard Deviation[a], 1.86.

[a]The calculations are made with the exclusion of the 8 respondents who did not indicate their family size (398 - 8 = 390).

Table 90. Family incomes of AOSERP study area hunting survey respondents, 1975-76 season.

Income Class	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
No Answer	25	6.3	Not Applicable
Less than $ 5,000	16	4.0	4.3
$ 5,001 - $10,000	25	6.3	6.7
$10,001 - $15,000	54	13.6	14.5
$15,001 - $20,000	99	24.9	26.5
$20,001 - $25,000	83	20.9	22.3
$25,001 - $30,000	49	12.3	13.1
$30,001 - $35,000	25	6.3	6.7
$35,001 and over[b]	22	5.5	5.9
TOTAL	398	100.0	100.0

Mode[a,b], $19,411; Mode[a,b], $17,500; Median[a,b], $17,500; Standard Deviation[a,b], $9,525.

[a]The calculations are made with the exclusion of the 25 respondents who did not indicate their family income (398 - 25 =273).

[b]Calculations are made on the assumption that the 22 responses in the $35,001 and over income class are distributed as follows:

$35,001 - $40,000	11
$40,001 - $45,000	5
$45,001 - $50,000	3
$50,001 - $55,000	2
$55,001 - $60,000	1

Midpoints and corresponding frequencies for each income class were utilized in the calculations. These assumptions are such that the calculations provided are estimates of actual sample measures.

Table 91. Years of formal education of AOSERP study area hunting survey respondents, 1975-76 season.

Education Category	Number of Years	Number of Respondents	Percent of Total Response	Adjusted percent of Response[a]	Adjusted Cumulative Percent of Response[a]
No Answer	n.a.	9	2.3	n.a.	n.a.
Grade School	0	1	0.3	0.3	0.3
	1	0	0.0	0.0	0.3
	2	2	0.5	0.5	0.8
	3	5	1.3	1.3	2.1
	4	2	0.5	0.5	2.6
	5	7	1.8	1.8	4.4
	6	5	1.3	1.3	5.7
	7	11	2.8	2.8	8.5
	8	24	6.0	6.1	14.6
	9	30	7.5	7.7	22.3
High School	10	54	13.6	13.9	36.2
	11	40	10.1	10.3	46.5
	12	85	21.4	21.8	68.3
University	1	8	2.0	2.1	70.4
	2	8	2.0	2.1	72.5
	3	1	0.3	0.3	72.8
	4	18	4.5	4.6	77.4
	5	5	1.3	1.3	78.7
	6	3	0.8	0.8	79.5
	7	3	0.8	0.8	80.3
Technical	1	18	4.5	4.6	84.9
	2	20	5.0	5.1	90.0
	3	11	2.8	2.8	92.8
	4	28	7.0	7.2	100.0
TOTAL		398	100.0	100.0	

[a]Calculations are made with the exclusion of the number of respondents who did not indicate their years of formal education (398 - 9 = 389).

Table 92. Previous hunting experience of AOSERP study area hunting survey respondents, 1975-76 season.

Category	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
No Answer	3	0.8	n.a.
Hunted for Sport Prior to 1975-76 Season	352	88.4	89.1
Did Not Hunt for Sport Prior to the 1975-76 Season	43	10.8	10.9
TOTAL	398	100.0	100.0

[a]The calculations are made with the exclusion of the three respondents who did not indicate whether or not they hunted prior to the 1975-76 season.

Table 93. Previous provincial hunting experience of AOSERP study area hunting survey respondents, 1975-76 season.

Category	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
No Answer	1	0.3	n.a.
Hunted in Alberta Prior to the 1975-76 Season	329	82.6	82.9
Did Not Hunt in Alberta Prior to the 1975-76 Season	68	17.1	17.1
TOTAL	398	100.0	100.0

[a]The calculations are made with the exclusion of the one respondent who did not indicate provincial hunting experience prior to the 1975-76 season.

Table 94. Previous AOSERP study area hunting experience of study area hunting survey respondents, 1975-76 season.

Category	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]
No Answer	3	0.8	n.a.
Hunted in the AOSERP Study Area Prior to the 1975-76 Season	252	63.3	63.8
Did Not Hunt in the AOSERP Study Area Prior to the 1975-76 Season	143	35.9	36.2
TOTAL	389	100.0	100.0

[a]The calculations are made with the exclusion of the three respondents who did not indicate whether or not they hunted in the study area prior to the 1975-76 season.

Table 95. Hunting experience in Alberta during the 1975-76 season of study area hunting survey respondents, 1975-76 season.

Category	Number of Respondents	Percent of Total Response
Hunted in Alberta at Least Once During the 1975-76 Season	364	91.5
Did Not Hunt in Alberta During the 1975-76 Season	34	8.5
TOTAL	398	100.0

Table 96. Reasons for hunting given by study area hunting survey respondents, 1975-76 season.

Reasons for Hunting	Number of Respondents[a]						Score[b]	Percent of Total Score
	Rank of Choice				Checked but Not Ranked	Not Ranked		
	1st	2nd	3rd	4th				
Meat	190	128	31	0	18	8	1,260	41.5
Enjoyment	169	142	15	1	17	31	1,184	39.0
Trophy	14	31	166	6	3	155	496	16.3
Other Reasons:								
- Relaxation	1	3	3	0	1		22	
- Pelts, Hides, or Feathers	0	5	1	1	0		18	
- Exercise	0	2	3	1	0		13	
- Sport, Challenge, or Stalking	0	2	2	0	0		10	
- Companionship	1	0	3	0	0		10	
- Seeing or Exploring Countryside	0	1	2	0	1		10	
- To Accompany or Teach Children	0	2	0	0	0		6	
- To Promote Conservation	0	0	2	0	0		4	
- Enjoyment of Shooting	0	1	0	0	0		3	
- To Work Dogs	0	0	1	0	0		2	
- To Take Pictures	0	0	0	1	0		1	
SUBTOTAL	2	16	17	3	2	335	99	3.2
TOTAL	375	317	229	10	40		3,039	100.0

[a]Among the 398 respondents, 23 did not provide reasons for hunting, thus leaving 375 respondents.

[b]The scores are weighted sums of the rankings in which "1st" is weighed 4, "2nd" 3, "3rd" 2, "4th" 1 and "checked but not ranked" 3. Each respondent, on average, gave three reasons and in cases where no rankings were provided each choice, on average, would rank second; hence, the weighting of 3 entries under "checked but not ranked".

Table 97. Licenses held by study area hunting survey respondents, 1975-76 season.

License	Number of Respondents	Percent of Total No. of Respondents[a]
Angling	241	60.6
Moose	261	65.6
Bird Game	237	59.6
Migratory Bird Game	141	35.4
Moose (Zone 1)	104	26.1
White-tailed Deer	86	21.6
Black Bear	82	20.6
Mule Deer	31	7.8
Caribou	11	2.8
Elk	10	2.5
Trophy Big Horn Sheep	4	1.0
Archery	2	0.5
Camp Wainwright Deer	1	0.3
Non-trophy Sheep	1	0.3

[a]Based on 398 respondents. There are a total of 1,212 hunting licenses represented here (excluding fishing). Each respondent on average held three different kinds of Alberta hunting licenses during the 1975-76 season.

Table 98. Hunting experience in the study area during the 1975-76 season of AOSERP study area hunting survey respondents, 1975-76 season.

Category	Number of Respondents	Percent of Total Response
Hunted in the Study Area at Least Once During the 1975-76 Season	281	70.6
Did Not Hunt in the Study Area During the 1975-76 Season	117	29.4
TOTAL	398	100.0

Table 99. Rating of big game hunting experience by study area hunting survey respondents, 1975-76 season.

Ratings	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Cumulative Adjusted Percent of Response
Not Applicable	40[b]	14.2	n.a.	n.a.
No Answer	12	4.3	n.a.	n.a.
Very Good	13	4.6	5.7	5.7
Good	51	18.2	22.3	28.0
Fair	58	20.6	25.3	53.3
Poor	72	25.6	31.4	84.7
Very Poor	35	12.5	15.3	100.0
TOTAL	281[c]	100.0	100.0	

[a]The calculations are made with the exclusion of the 52 respondents who did not give ratings (281 - 40 - 12 = 229).

[b]Respondents who hunted in the area but did not hunt big game.

[c]This figure represents the 398 respondents indicated in the previous tables of Appendix 8.3, less than 117 respondents who did not hunt in the study area during 1975-76 as indicated in Table 98. Consequently, in most of the subsequent tables in Appendix 8.3, the calculations are based on the 281 respondents who actually hunted in the area during the 1975-76 season.

Table 100. Rating of upland bird game hunting experience by study area hunting survey respondents, 1975-76 season.

Ratings	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Cumulative Adjusted Percent of Response[a]
Not Applicable[b]	184	65.5	n.a.	n.a.
No Answer	9	3.2	n.a.	n.a.
Very Good	14	5.0	15.9	15.9
Good	31	11.0	35.2	51.1
Fair	30	10.7	34.1	85.2
Poor	7	2.5	8.0	93.2
Very Poor	6	2.1	6.8	100.0
TOTAL	281	100.0	100.0	

[a]The calculations are made with the exclusion of the 193 respondents who did not give ratings (281 - 184 - 9 = 88).

[b]Respondents who hunted in the area but did not hunt upland bird game.

Table 101. Ratings of waterfowl hunting experience by study area hunting survey respondents, 1975-76 season.

Ratings	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[a]	Cumulative Adjusted Percent of Response[a]
Not Applicable[b]	250	89.0	n.a.	n.a.
No Answer	1	0.4	n.a.	n.a.
Very good	4	1.4	13.3	13.3
Good	7	2.5	23.3	36.6
Fair	8	2.8	26.8	63.4
Poor	7	2.5	23.3	86.7
Very Poor	4	1.4	13.3	100.0
TOTAL	281	100.0	100.0	

[a]The calculations are made with the exclusion of the 251 respondents who did not give ratings (281 - 250 - 1 = 30).

[b]Respondents who hunted in the area but did not hunt waterfowl.

Table 102. Extramarket benefits per person per day for moose hunting received by study area hunting survey respondents, 1975-76 season.

Extramarket Benefit per Day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	46	16.4	n.a.
No Answer	24	8.5	n.a.
"Nonsensical Question"	2	0.7	n.a.
Cannot Answer	6	2.1	n.a.
Priceless Benefit	4	1.4	n.a.
$ 0	26	9.2	13.1
1	2	0.7	1.0
2	3	1.1	1.5
3	2	0.7	1.0
4	6	2.1	3.0
5	24	8.5	12.1
7	2	0.7	1.0
8	6	2.1	3.0
9	3	1.1	1.5
10	46	16.3	23.1
12	1	0.4	0.5
14	3	1.1	1.5
16	1	0.4	0.5
18	1	0.4	0.5
20	33	11.7	16.6
22	1	0.4	0.5
24	2	0.7	1.0
25	3	1.1	1.5
26	2	0.7	1.0
28	1	0.4	0.5
30	21	7.5	10.6

Continued ...

Table 102. Concluded.

Extramarket Benefit per Day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
$ 40	2	0.7	1.0
50	5	1.8	2.5
60	1	0.4	0.5
100	2	0.7	1.0
TOTAL	281	100.0	100.0

Mean[b], $14.48; Mode[b], $10.00; Median[b], $10.00;
Standard Deviation[b], $14.58.

[a]Extramarket benefit is the value of a days hunting by a respondent, over and above what is spent on travel and other hunting expenses.

[b]Calculations are made with the exclusion of the number of respondents who did not provide dollar amounts of extramarket benefits (281 - 46 - 24 - 2 - 6 - 4 = 199).

[c]Respondents who hunted in the area but did not hunt moose.

Table 103. Extramarket benefits per person per day for white-tailed deer hunting received by study area hunting survey respondents, 1975-76 season.

Extramarket Benefit per Day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	265	94.2	n.a.
$ 2	1	0.4	6.3
5	6	2.1	37.4
10	2	0.7	12.5
12	1	0.4	6.3
20	3	1.1	18.7
30	2	0.7	12.5
100	1	0.4	6.3
TOTAL	281	100.0	100.0

Mean[b], $17.75; Mode[b], $5.00; Median[b], $10.00;
Standard Deviation[b], $22.99.

[a]Extramarket benefit is the value of a days hunting by a respondent, over and above what is spent on travel and other hunting expenses.

[b]Calculations are made with the exclusion of the number of respondents who did not provide dollar amounts of extramarket benefits (281 - 265 = 16).

[c]Respondents who hunted in the area but did not hunt white-tailed deer.

Table 104. Extramarket benefits per person per day for mule deer hunting received by AOSERP study area hunting survey respondents, 1975-76 season.

Extramarket Benefit per Day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	277	98.4	n.a.
Priceless Benefit	1	0.4	n.a.
$ 2	1	0.4	33.3
20	1	0.4	33.3
30	1	0.4	33.4
TOTAL	281	100.0	100.0

Mean[b], $17.33; Mode[b], $2.00, $20.00 and $30.00; Median[b], $20.00; Standard Deviation[b], $11.59.

[a]Extramarket benefit is the value of a days hunting by a respondent, over and above what is spent on travel and other hunting expenses.

[b]Calculations are made with the exclusion of the number of respondents who did not provide dollar amounts of extramarket benefits (281 - 277 - 1 = 3).

[c]Respondents who hunted in the area but did not hunt mule deer.

Table 105. Extramarket benefits per person per day for upland bird game hunting received by AOSERP study area hunting survey respondents, 1975-76 season.

Extramarket Benefit per Day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	184	65.4	n.a.
No Answer	11	3.9	n.a.
Cannot Answer	3	1.1	n.a.
Priceless Benefit	2	0.7	n.a.
$ 0	6	2.1	7.4
1	3	1.1	3.7
2	5	1.8	6.2
3	6	2.1	7.4
4	3	1.1	3.7
5	20	7.1	24.7
6	2	0.7	2.5
7	1	0.4	1.2
8	2	0.7	2.5
9	2	0.7	2.5
10	17	6.0	21.0
16	2	0.7	2.5
18	1	0.4	1.2
20	4	1.4	4.9
24	1	0.4	1.2
30	3	1.1	3.7
50	2	0.7	2.5
100	1	0.4	1.2
TOTAL	281	100.0	100.0

Mean[b], $10.00; Mode[b], $5.00; Median[b], $5.00;
Standard Deviation[b], $13.77.

Continued ...

Table 105. Concluded.

[a]Extramarket benefit is the value of a days hunting by a respondent, over and above what is spent on travel and other hunting expenses.

[b]Calculations are made with the exclusion of the number of respondents who did not provide dollar amounts of extramarket benefits (281 - 184 - 11 - 3 - 2 = 81).

[c]Respondents who hunted in the area but did not hunt upland bird game.

Table 106. Extramarket benedits per person per day for waterfowl hunting received by AOSERP study area hunting survey respondents, 1975-76 season.

Extramarket Benefit per Day[a]	Number of Respondents	Percent of Total Response	Adjusted Percent of Response[b]
Not Applicable[c]	250	88.6	n.a.
No Answer	1	0.4	n.a.
Cannot Answer	1	0.4	n.a.
Priceless Benefit	1	0.4	n.a.
$ 0	2	0.7	7.1
2	1	0.4	3.6
4	2	0.7	7.1
5	8	2.8	28.5
6	1	0.4	3.6
8	1	0.4	3.6
10	8	2.8	28.5
14	1	0.4	3.6
16	1	0.4	3.6
18	1	0.4	3.6
30	1	0.4	3.6
50	1	0.4	3.6
TOTAL	281	100.0	100.0

Mean[b], $9.71; Mode[b], $5.00 and $10.00; Median[b], $7.00; Standard Deviation[b], $9.76.

[a]Extramarket benefit is the value of a days hunting by a respondent, over and above what is spent on travel and other hunting expenses.

[b]Calculations are made with the exclusion of the number of respondents who did not provide dollar amounts of extramarket benefits (281 - 250 - 1 - 1 - 1 = 28).

[c]Respondents who hunted in the area but did not hunt waterfowl.

Table 107. Hunting activities of AOSERP study area hunting survey respondents, 1975-76 season.

Item	Mean[a]	Mode	Median	Standard Deviation	Range
Total Days Hunted per Person	5.88	2.00	4.13	5.86	0.50- 52.00
Total No. of Trips per Person	2.40	1.00	1.85	1.89	1.00- 13.00
No. of Days Hunted per Trip per Person	2.45	2.00	2.23	3.10	0.50- 26.00
Party Size per Trip per Person	2.34	2.00	2.01	1.09	1.00- 7.00
Total Distance Travelled per Person km(miles)	298.40(185.31)	193.23(120.00)	204.51(127.00)	344.80(214.12)	9.66-3,346.22 (6.00-2,078.00)
Distance travelled per Trip per Person km(miles)	124.33(77.21)	161.03(100.00)	107.33(66.65)	105.19(65.32)	6.44- 805.15 (4.00- 500.00)

[a]Among the 281 respondents who hunted during the 1975-76 season, only one did not specify hunting activity information. Consequently, the calculations presented here are based on a sample size of 280 respondents.

Table 108. Big game hunter activity and success by species of AOSERP study area hunting survey respondents, 1975-76 season.

Name of Species Sought	Number of Respondents	Number of Times Sought	Number of Days	Animals Taken	No. Taken Per Person	No. of Days Per Person
Big Game, Unspecified	1	1	0.5	0	0.00	0.50
Moose	233	462	1140.5	34	0.15	4.89
Bear, Unspecified	34	62	147.0	8	0.24	4.32
Bear, Black	2	2	21.0	0	0.00	10.50
Caribou, Woodland	4	4	22.0	1	0.25	5.50
Deer, Unspecified	7	10	24.5	0	0.00	3.50
Deer, White-tailed	6	9	22.5	0	0.00	3.75
Deer, Mule	2	2	9.0	0	0.00	4.50
TOTAL[a]	241	499	1,201.5	43		
AVERAGE					0.18	4.99

[a]The totals for number of respondents, number of times sought, and number of days are more than corresponding totals presented since some hunters sought more than one species per trip. Among the 281 respondents who hunted in the study area, one did not specify hunting activity information. Among the 280 sample respondents, 241 persons hunted big game on 499 trips, totalling 1,201.5 hunter days during which 43 animals were taken.

Table 109. Bird game hunter activity and success by species of AOSERP study area hunting survey respondents, 1975-76 season.

Name of Species Sought	Number of Respondents	Number of Times Sought	Number of Days	Birds Taken	No. Taken Per Person	No. of Days Per Person
Birds, Unspecified[a]	5	9	22.0	25	5.00	4.40
Bird Game Unspecified	3	3	10.5	39	13.00	3.50
Upland Bird Game, Unspecified	45	90	223.5	274	6.09	4.97
Grouse, Unspecified	34	65	148.0	206	6.06	4.35
Grouse, Ruffed	12	18	98.0	149	12.42	8.17
Grouse, Spruce	6	6	64.0	54	9.00	10.67
Ptarmigan, Unspecified	4	11	13.0	14	3.50	3.25
Pheasant, Ring-necked	1	1	1.0	0	0.00	1.00
TOTAL[b]	90	181	499.0	697		
AVERAGE					7.74	5.54
Migratory Bird Game, Unspecified	8	9	24.0	85	10.63	3.00
Duck, Unspecified	11	14	26.0	82	7.46	2.36
Duck, Mallard	3	5	8.0	14	4.67	2.67
Goose, Unspecified	4	4	13.0	17	4.25	3.25
Goose, Canada	1	1	2.0	10	10.00	2.00
TOTAL[c]	25	32	71.0	208		
AVERAGE					8.32	2.84

Continued ...

Table 109. Concluded.

[a]May include birds other than bird game.

[b]The totals for number of respondents, number of times sought, and number of days are more than corresponding totals presented since some hunters sought more than one species per trip. Among the 280 sample respondents, 90 persons hunted upland bird game on 181 trips, totalling 499 hunter days in which 697 birds were taken.

[c]The totals for number of respondents, number of times sought, and number of days are more than corresponding totals presented since hunters sought more than one species per trip. Among the 280 sample respondents, 25 persons hunted migratory bird game on 32 trips, totalling 71 hunter days in which 208 birds were taken.

Table 110. Big game hunting activity by grid number of AOSERP study area hunting survey respondents, 1975-76 season.

Grid No.[a]	Number of Respond-ents[b]	Total Days Hunted per Person	Total Trips per Person	Days Hunted Per Trip Per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Animals Taken per Person
						km	miles	km	miles	
1	5	5.20	1.40	3.71	2.86	515.3	320.0	368.1	228.6	0.60
2	6	3.17	1.00	3.17	2.00	407.9	253.3	407.9	253.3	0.17
3	24	2.79	1.13	2.48	2.30	190.8	118.5	169.6	105.3	0.25
4	24	2.85	1.00	2.85	2.67	279.1	173.3	248.1	154.1	0.21
5	21	3.05	1.57	1.94	2.42	229.1	142.3	145.9	90.6	0.14
6	31	2.24	1.06	2.11	2.23	148.0	91.9	139.1	86.4	0.06
7	35	2.27	1.26	1.81	2.20	140.1	87.0	111.4	69.2	0.00
8	18	2.97	1.33	2.23	2.88	170.0	105.6	127.5	79.2	0.06
9	132	3.33	1.38	2.41	2.43	147.5	91.6	106.9	66.4	0.10
10	113	2.79	1.05	2.65	2.55	124.0	77.0	117.7	73.1	0.08
AOSERP[c]	241	4.99	2.07	2.41	2.45	278.3	172.8	134.5	83.5	0.18

[a]Grid number locations are given in Figure 3.

[b]Each of the 241 respondents, on average, hunted big game in 1.7 grid number locations.

[c]The figures, reading across, pertain to the entire AOSERP Study Area.

Table III. Upland bird game hunting activity by grid number of AOSERP study area hunting survey respondents, 1975-76 season.

Grid No.[a]	Number of Respond-ents[b]	Total Days Hunted per Person	Total Trips per Person	Days Hunted Per Trip Per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Birds Taken per Person
						km	miles	km	miles	
1	1	1.50	3.00	0.50	1.67	138.5	86.0	46.2	28.7	8.00
2	0	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.00
3	2	2.25	1.00	2.25	4.00	233.5	145.0	233.5	145.0	2.00
4	5	1.90	1.00	1.90	2.40	193.2	120.0	193.2	120.0	3.60
5	4	6.75	1.00	6.75	3.00	149.0	92.5	149.0	92.5	9.50
6	10	1.90	1.30	1.46	2.08	126.2	78.4	97.1	60.3	4.40
7	18	3.92	1.50	2.61	2.11	75.5	46.9	50.4	31.3	4.33
8	4	3.00	1.25	2.40	2.20	90.2	56.0	72.1	44.8	7.50
9	41	4.62	1.39	3.32	2.37	91.5	56.8	65.7	40.8	6.93
10	41	4.04	1.59	2.55	2.18	128.2	79.6	80.8	50.2	4.71
AOSERP[c]	90	5.54	2.01	2.76	2.28	157.3	97.7	78.3	48.6	7.74

[a]Grid Number locations are given in Figure 3.

[b]Each of the 90 respondents, on average, hunted upland bird game in 1.4 grid number locations.

[c]The figures, reading across, pertain to the entire AOSERP study area.

Table 112. Migratory bird game hunting activity by grid number of AOSERP study area hunting survey respondents, 1975-76 season.

Grid No.[a]	Number of Respond-ents[b]	Total Days Hunted per Person	Total Trips per Person	Days Hunted Per Trip Per Person	Party Size per Trip per Person	Total Distance Travelled per Person		Distance Travelled per Trip per Person		Total Birds Taken per Person
						km	miles	km	miles	
1	4	3.00	1.25	2.40	2.00	122.4	76.0	97.9	60.8	31.25
2	0	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.00
3	0	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.00
4	4	4.50	1.00	4.50	3.75	281.8	175.0	281.8	175.0	4.25
5	0	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.00
6	0	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.00
7	1	1.00	1.00	1.00	4.00	96.6	60.0	96.6	60.0	4.00
8	0	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.00
9	6	2.00	1.00	2.00	2.67	72.9	45.3	72.9	45.3	3.33
10	11	2.55	1.45	1.75	1.88	112.7	70.0	77.5	48.1	3.82
TOTAL[c]	25	2.84	1.28	2.22	2.45	135.6	84.2	106.0	65.8	8.32

[a]Grid number locations are given in Figure 3.

[b]Each of the 25 respondents, on average, hunted migratory bird game in 1.04 grid number locations.

[c]The figures, reading across, pertain to the entire AOSERP study area.

Table 113. Game harvest by species and by grid number of AOSERP study area hunting survey respondents, 1975-76 season.

Species	Number Taken by Grid Number[a]										
	1	2	3	4	5	6	7	8	9	10	TOTAL
Moose	3	1	4	6	2	0	0	1	8	9	34
Bear, Unspecified	0	0	0	0	1	2	0	0	5	0	8
Caribou, Woodland	0	0	1	0	0	0	0	0	0	0	1
TOTAL BIG GAME	3	1	5	6	3	2	0	1	13	9	43
Upland Bird Game, Unspecified	3	0	0	10	7	32	23	12	123	64	274
Grouse, Unspecified	0	0	4	4	31	4	25	0	74	64	206
Grouse, Ruffed	0	0	0	4	0	5	21	0	75	44	149
Grouse, Spruce	0	0	0	0	0	3	0	18	12	21	54
Ptarmigan, Unspecified	5	0	0	0	0	0	9	0	0	0	14
TOTAL UPLAND BIRD GAME	8	0	4	18	38	44	78	30	284	193	697
Migratory Bird Game, Unspecified	65	0	0	0	0	0	0	0	4	16	85
Duck, Unspecified	50	0	0	6	0	0	0	0	10	16	82
Duck, Mallard	0	0	0	0	0	0	4	0	0	10	14
Goose, Unspecified	0	0	0	11	0	0	0	0	6	0	17
Goose, Canada	10	0	0	0	0	0	0	0	0	0	10
TOTAL MIGRATORY BIRD GAME	125	0	0	17	0	0	4	0	20	42	208
Bird Game, Unspecified	15								20	4	39
Bird, Unspecified[b]							4	5		16	25

Continued ...

Table 113. Concluded.

[a]Grid number locations are given in Figure 3. The number of hunter respondents by species are given in Tables 108 and 109. The number of hunter respondents by grid location are given in Tables 110, 111 and 112.

[b]May include birds other than bird game.

Table 114. Comments on hunting provided by study area hunting survey respondents, 1975-76 season.

Comment[a]		Number of Respondents
Improvements		73
(1) Increase accessibility	(27)	
(2) Reduce overcrowding	(7)	
(3) More enforcement	(6)	
(4) Start season later and close later	(5)	
(5) Reduce habitat damage caused by industry	(3)	
(6) Ban hunting by vehicle or plane	(3)	
(7) Increase preservation	(2)	
(8) Reduce overhunting	(2)	
(9) Reduce pollution	(2)	
(10) Reduce timber wolves	(2)	
(11) More facilities including campgrounds	(2)	
(12) More control over number of licences issued	(2)	
(13) Ban trophy hunting	(1)	
(14) Limit number of Indians and road workmen hunting	(1)	
(15) Better management	(1)	
(16) Stop herding game into park	(1)	
(17) Stock area with game	(1)	
(18) Extend cow moose season	(1)	
(19) More hunting information required	(1)	
(20) More "hunting by permission" signs on private land	(1)	
(21) Preclude nonresident hunting	(1)	
(22) Increased hunting safety	(1)	
Hunting is deteriorating		11
Hunting is a good recreational activity		10
(1) for enjoyment	(8)	
(2) for outdoor experiences	(2)	
Hunting is good		7
Hunting is poor		6
Hunting is priceless		4
Hunting is becoming a sport for the rich only		3
Game is scarce		2
Hunting is good in remote areas		2
Game is abundant		2
Must go up rivers which is difficult		2
Saw a lot of game on Highway 63 south		2
Upland birds in cyclic low		1
Grouse hunting is good		1

Continued ...

Table 114. Concluded.

Comments[a]	Number of Respondents
Waterfowl adequate but taste fishy	1
Deer are scarce	1
Moose hunting is good	1
Bear hunting is good	1
Hunting is very important	1
Hunting is not necessary except for those who live off the food	1
No rabbits	1
Bought a license only to travel	1
Not a good hunter	1
Shooting with a camera is just as good as shooting with a gun	1
Primarily a fisherman	1
Athabasca Oil Sands area is a very valuable hunting area	1
Hampered by lack of snow for snowmobile	1
Did not bag a moose due to late fall and short cow and calf seasons	1
Did not see any game all season	1
Do not hunt birds, waterfowl, or bush deer; they do not taste good	1
Need wilderness areas near densely populated areas	1
A farmer feels hunters abuse his property	1
Miscellaneous Comments[b]	15
TOTAL NUMBER OF COMMENTS[c]	159

[a]Each questionnaire recipient was asked to give any additional comments which might help to evaluate the sport hunting in the AOSERP study area.

[b]Includes comments which did not pertain to evaluation of sport hunting or could not be interpreted.

[c]Among the 281 respondents who hunted in the AOSERP study area during the 1975-76 season, 61 gave no comment, 81 provided one comment, and 39 provided two comments.

Table 115. Significance between first and second mailings on selected variables for AOSERP study area hunting survey respondents, 1975-76 season.

Variable[a]	Chi Square	Degrees of Freedom	Percent Significance[b]
Family Size	5.279	9	80.93
Family Income	5.334	8	72.14
Whether Hunted in the study area Prior to the 1975-76 Season	1.605	2	44.82
Whether Hunted in the study area at Least Once During the 1975-76 Season	3.256	2	19.63
Number of Hunting Trips Taken in area During the 1975-76 Season	9.446	11	58.08
Rating of big Game Hunting Experience in area, 1975-76 Season	7.106	7	41.80
Rating of Upland Bird Game Hunting Experience in area, 1975-76 Season	9.508	7	21.82
Rating of Waterfowl Hunting Experience in area, 1975-76 Season	6.698	7	46.10
Extramarket Benefits--Moose Hunting	40.038	29	8.33
Extramarket Benefits--Upland Bird Game Hunting	18.470	21	61.91
Extramarket Benefits--Waterfowl Hunting	14.747	15	46.98

[a]Among the 398 respondents there were 206 in the first mailing and 192 in the second mailing.

[b]Since the percentages of the variables are all greater than the 5.00 percent level of significance, there is no evidence of differences between first and second mailings.

9. AOSERP RESEARCH REPORTS

1.		AOSERP First Annual Report, 1975
2.	AF 4.1.1	Walleye and Goldeye Fisheries Investigations in the Peace-Athabasca Delta--1975
3.	HE 1.1.1	Structure of a Traditional Baseline Data System
4.	VE 2.2	A Preliminary Vegetation Survey of the Alberta Oil Sands Environmental Research Program Study Area
5.	HY 3.1	The Evaluation of Wastewaters from an Oil Sand Extraction Plant
6.		Housing for the North--The Stackwall System
7.	AF 3.1.1	A Synopsis of the Physical and Biological Limnology and Fisheries Programs within the Alberta Oil Sands Area
8.	AF 1.2.1	The Impact of Saline Waters upon Freshwater Biota (A Literature Review and Bibliography)
9.	ME 3.3	Preliminary Investigations into the Magnitude of Fog Occurrence and Associated Problems in the Oil Sands Area
10.	HE 2.1	Development of a Research Design Related to Archaeological Studies in the Athabasca Oil Sands Area
11.	AF 2.2.1	Life Cycles of Some Common Aquatic Insects of the Athabasca River, Alberta
12.	ME 1.7	Very High Resolution Meteorological Satellite Study of Oil Sands Weather: "a Feasibility Study"
13.	ME 2.3.1	Plume Dispersion Measurements from an Oil Sands Extraction Plant, March 1976
15.	ME 3.4	A Climatology of Low Level Air Trajectories in the Alberta Oil Sands Area
16.	ME 1.6	The Feasibility of a Weather Radar near Fort McMurray, Alberta
17.	AF 2.1.1	A Survey of Baseline Levels of Contaminants in Aquatic Biota of the AOSERP Study Area
18.	HY 1.1	Interim Compilation of Stream Gauging Data to December 1976 for the Alberta Oil Sands Environmental Research Program
19.	ME 4.1	Calculations of Annual Averaged Sulphur Dioxide Concentrations at Ground Level in the AOSERP Study Area
20.	HY 3.1.1	Characterization of Organic Constituents in Waters and Wastewaters of the Athabasca Oil Sands Mining Area

21.		AOSERP Second Annual Report, 1976-77
22.	HE 2.3	Maximization of Technical Training and Involvement of Area Manpower
23.	AF 1.1.2	Acute Lethality of Mine Depressurization Water on Trout Perch and Rainbow Trout
24.	ME 4.2.1	Air System Winter Field Study in the AOSERP Study Area, February 1977.
25.	ME 3.5.1	Review of Pollutant Transformation Processes Relevant to the Alberta Oil Sands Area
26.	AF 4.5.1	Interim Report on an Intensive Study of the Fish Fauna of the Muskeg River Watershed of Northeastern Alberta
27.	ME 1.5.1	Meteorology and Air Quality Winter Field Study in the AOSERP Study Area, March 1976
28.	VE 2.1	Interim Report on a Soils Inventory in the Athabasca Oil Sands Area
29.	ME 2.2	An Inventory System for Atmospheric Emissions in the AOSERP Study Area
30.	ME 2.1	Ambient Air Quality in the AOSERP Study Area, 1977
31.	VE 2.3	Ecological Habitat Mapping of the AOSERP Study Area: Phase I
32.		AOSERP Third Annual Report, 1977-78
33.	TF 1.2	Relationships Between Habitats, Forages, and Carrying Capacity of Moose Range in northern Alberta. Part I: Moose Preferences for Habitat Strata and Forages.
34.	HY 2.4	Heavy Metals in Bottom Sediments of the Mainstem Athabasca River System in the AOSERP Study Area
35.	AF 4.9.1	The Effects of Sedimentation on the Aquatic Biota
36.	AF 4.8.1	Fall Fisheries Investigations in the Athabasca and Clearwater Rivers Upstream of Fort McMurray: Volume I
37.	HE 2.2.2	Community Studies: Fort McMurray, Anzac, Fort MacKay
38.	VE 7.1.1	Techniques for the Control of Small Mammals: A Review
39.	ME 1.0	The Climatology of the Alberta Oil Sands Environmental Research Program Study Area
40.	WS 3.3	Mixing Characteristics of the Athabasca River below Fort McMurray - Winter Conditions
41.	AF 3.5.1	Acute and Chronic Toxicity of Vanadium to Fish
42.	TF 1.1.4	Analysis of Fish Production Records for Registered Traplines in the AOSERP Study Area, 1970-75
43.	TF 6.1	A Socioeconomic Evaluation of the Recreational Fish and Wildlife Resources in Alberta, with Particular Reference to the AOSERP Study Area. Volume I: Summary and Conclusions
44.	VE 3.1	Interim Report on Symptomology and Threshold Levels of Air Pollutant Injury to Vegetation, 1975 to 1978
45.	VE 3.3	Interim Report on Physiology and Mechanisms of Air-Borne Pollutant Injury to Vegetation, 1975 to 1978

46.	VE 3.4	Interim Report on Ecological Benchmarking and Biomonitoring for Detection of Air-Borne Pollutant
47.	TF 1.1.1	A Visibility Bias Model for Aerial Surveys of Moose on the AOSERP Study Area
48.	HG 1.1	Interim Report on a Hydrogeological Investigation of the Muskeg River Basin, Alberta
49.	WS 1.3.3	The Ecology of Macrobenthic Invertebrate Communities in Hartley Creek, Northeastern Alberta
50.	ME 3.6	Literature Review on Pollution Deposition Processes
51.	HY 1.3	Interim Compilation of 1976 Suspended Sediment Data in the AOSERP Study Area
52.	ME 2.3.2	Plume Dispersion Measurements from an Oil Sands Extraction Plant, June 1977
53.	HY 3.1.2	Baseline States of Organic Constituents in the Athabasca River System Upstream of Fort McMurray
54.	WS 2.3	A Preliminary Study of Chemical and Microbial Characteristics of the Athabasca River in the Athabasca Oil Sands Area of Northeastern Alberta.
55.	HY 2.6	Microbial Populations in the Athabasca River
56.	AF 3.2.1	The Acute Toxicity of Saline Groundwater and of Vanadium to Fish and Aquatic Invertebrates
57.	LS 2.3.1	Ecological Habitat Mapping of the AOSERP Study Area (Supplement): Phase I
58.	AF 2.0.2	Interim Report on Ecological Studies on the Lower Trophic Levels of Muskeg Rivers Within the Alberta Oil Sands Environmental Research Program Study Area
59.	TF 3.1	Self-Aquatic Mammals. Annotated Bibliography
60.	WS 1.1.1	Synthesis of Surface Water Hydrology
61.	AF 4.5.2	An Intensive Study of the Fish Fauna of the Steepbank River Watershed of Northeastern Alberta.

These reports are not available upon request. For further information about availability and location of depositories, please contact:

Alberta Oil Sands Environmental Research Program
15th Floor, Oxbridge Place
9820 - 106 Street
Edmonton, Alberta T5K 2J6